STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
525 W. ALLEGAN, LANSING, MI 48933

NOTICE OF CONTRACT NO. 071B5500147
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR	PRIMARY CONTACT	EMAIL
Measurement, Inc.	**Henry Scherich**	**hscherich@measinc.com**
423 Morris Street	**PHONE**	**VENDOR TAX ID #** **(LAST FOUR DIGITS ONLY)**
Durham, NC 27701	**(919) 683-2413**	**4255**

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
PROGRAM MANAGER	**MDE**	**Andrew J. Middlestead**	**(517) 335-0568**	**middlesteada@michigan.gov**
CONTRACT ADMINISTRATOR	**DTMB**	**Lance Kingsbury**	**(517) 284-7017**	**kingsburyl@michigan.gov**

CONTRACT SUMMARY

DESCRIPTION: Administration, Scoring and Reporting of Statewide Assessments – Department of Education

INITIAL TERM	EFFECTIVE DATE	INITIAL EXPIRATION DATE	AVAILABLE OPTIONS
Three Years	**July 1, 2015**	**June 30, 2018**	**Five, one-year options**

PAYMENT TERMS	F.O.B.	SHIPPED TO	
N/A	**N/A**	**N/A**	

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-card	☐ Direct Voucher (DV)	☐ Other	☐ Yes	☒ No

MINIMUM DELIVERY REQUIREMENTS:

N/A

MISCELLANEOUS INFORMATION:

N/A

ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION:	$63.472,824.15

For the Contractor:

_____

_____ ,   **Date**

Contract Administrator

For the State:

_____

_____ ,   **Date**

_____

State of Michigan

STATE OF MICHIGAN

Contract No. 071B 5500147
Administration, Scoring and Reporting of Statewide Assessments

Definitions

24x7x365 means 24 hours a day, seven days a week, and 365 days a year (including the 366th day in a leap year).

Additional Service means any Services within the scope of the Contract, but not specifically provided under any Statement of Work.

Audit Period means the seven year period following Contractor's provision of any work under the Contract.

Bidder(s) are those companies that submit a proposal in response to the RFP.

Business Day means any day other than a Saturday, Sunday or State-recognized legal holiday from 8:00am EST through 5:00pm EST unless otherwise stated.

Blanket Purchase Order is an alternate term for Contract and is used in the Plan Sponsors' computer system.

Days means calendar days unless otherwise specified.

Deliverable means physical goods and/or services required or identified in a Statement of Work.

DTMB means the Michigan Department of Technology, Management and Budget.

Environmentally Preferable Products means a product or service that has a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. Such products or services may include, but are not limited to: those which contain recycled content, minimize waste, conserve energy or water, and reduce the amount of toxics either disposed of or consumed.

Hazardous Material means any material defined as hazardous under the latest version of federal Emergency Planning and Community Right-to-Know Act of 1986 (including revisions adopted during the term of the Contract).

Incident means any interruption in any function performed for the benefit of the State.

Key Personnel means any personnel identified in **Section 1.031** as Key Personnel.

New Work means any Services/Deliverables outside the scope of the Contract and not specifically provided under any Statement of Work, such that once added will result in the need to provide the Contractor with additional consideration. "New Work" does not include Additional Service.

Ozone-depleting Substance means any substance the Environmental Protection Agency designates in 40 CFR part 82 as: (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or (2) Class II, including, but not limited to, hydrochlorofluorocarbons.

Post-Consumer Waste means any product generated by a business or consumer which has served its intended end use; and which has been separated or diverted from solid waste for the purpose of recycling into a usable commodity or product, and which does not include post-industrial waste.

Post-Industrial Waste means industrial by-products which would otherwise go to disposal and wastes generated after completion of a manufacturing process, but does not include internally generated scrap commonly returned to industrial or manufacturing processes.

Recycling means the series of activities by which materials that are no longer useful to the generator are collected, sorted, processed, and converted into raw materials and used in the production of new products. This definition excludes the use of these materials as a fuel substitute or for energy production.

Reuse means using a product or component of municipal solid waste in its original form more than once.

RFP means a Request for Proposal designed to solicit proposals for services.
Services means any function performed for the benefit of the State.

SLA means Service Level Agreement.

Source Reduction means any practice that reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment prior to recycling, energy recovery, treatment, or disposal.

State Location means any physical location where the State performs work. State Location may include State-owned, leased, or rented space.

Subcontractor means a company selected by the Contractor to perform a portion of the Services, but does not include independent contractors engaged by Contractor solely in a staff augmentation role.

Unauthorized Removal means the Contractor's removal of Key Personnel without the prior written consent of the State.

Waste Prevention means source reduction and reuse, but not recycling.

Pollution Prevention means the practice of minimizing the generation of waste at the source and, when wastes cannot be prevented, utilizing environmentally sound on-site or off-site reuse and recycling. The term includes equipment or technology modifications, process or procedure modifications, product reformulation or redesign, and raw material substitutions. Waste treatment, control, management, and disposal are not considered pollution prevention, per the definitions under Part 143, Waste Minimization, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended.

Work in Progress means a Deliverable that has been partially prepared, but has not been presented to the State for Approval.

Work Product refers to any data compilations, reports, and other media, materials, or other objects or works of authorship created or produced by the Contractor as a result of an in furtherance of performing the services required by the Contract.

DEFINITIONS—Division of Accountability Services

Accommodation — Accommodations are practices and procedures in the areas of presentation, response, setting, and timing/scheduling that provide equitable access during instruction and assessment for students with disabilities. Educators and administrators design accommodations in order to compensate for or mitigate a disability the student may have, or to address a physical, mental, or emotional need a student exhibits. Accommodations administered both in regular instruction and during assessments are one way that educators ensure that students have access to education in a way that is equal to their peers. Accommodations are intended to reduce or eliminate the effects of a student's disability; they do not reduce the learning experience.

Activity-based observation item — In Michigan, this is a type of MI-Access Supported Independence or Participation performance-based item (SI/P) that takes into account the degree of assistance provided by the test administrator(s) to a student in completing an individual or group activity. The single digit response rating is A, B, C, or 1, 2, 3.

ADA (Americans with Disabilities Act) — Wide-ranging legislation intended to make American society more accessible to people with disabilities. It extends protection against discrimination to all State and local government services (including public schools) whether or not they receive Federal funds.

AERA (**American Educational Research Association)** — is the national interdisciplinary research association for scholars who undertake research in education.

Alternate Achievement Standards — Explicit definitions of how students are expected to demonstrate attainment of the knowledge and skills covered in the State's extended content standards.

Alternate Assessment — An assessment used to measure the learning progress and performance of students with disabilities whose IEP Teams have determined that it is not appropriate for them to participate in general education assessments (i.e., the MEAP or the MME). As allowed by federal law, these assessments may be based either on grade-level achievement standards or alternate achievement standards.

Answer Booklet — A scannable multi-page document in which students record their responses to an assessment.

Answer Document — A scannable answer sheet in which students record their responses to an assessment.

AI (Artificial Intelligence) Scoring — refers to computer-automated scoring of constructed-response items.

AIF (Assessment Interoperability Framework) – The framework being developed by the joint SIF/IMS working group to define how interoperability standards should be applied for an assessment platform in support of the current State standard assessments.

APA (American Psychological Association) — The largest scientific and professional organization representing psychology in the United States.

API (Application Programming Interface) — A specification intended to be used as an interface by software components to communicate with each other.

APIP (Accessible Portable Item Protocol) Standard — A technical standard that focuses on accessibility in assessment items. APIP is an extension of the QTIv2.1 standard, allowing accessibility information to be included in a digital test item definition so that items can be transferred between APIP compliant item banks.

Assessment — A tool or instrument that measures what a student knows and can do. This measurement is often expressed as a score on a numerical rating scale, as well as a description of a performance level.

Assessment Accommodation — Changes the way a student accesses an assessment without changing the actual standards the student is working toward or the content being assessed. The goal of an assessment accommodation is to minimize the impact of a student's disability on his or her performance on an assessment. Decisions regarding assessment accommodations are to be made on a case-by-case basis and are to be based on relative appropriateness to a disability and the impact it has on the student. Decisions about assessment accommodations should be made well in advance of the actual assessment.

Assessment Consortium— A multi-State arrangement collaborating on a Federally sponsored grant to develop a comprehensive assessment system aligned to the State Standards.

Assessment Coordinator — is the School or District Coordinator for statewide assessment programs. Currently, there are M-STEP, MI-Access, and MME coordinators for general and alternate assessment programs. Multiple assessment programs may be coordinated by a single person.

Assessment Window — is the span of days over which assessments are administered.

Benchmarks — While content standards describe what all students should know and be able to do in certain broad subject areas, benchmarks indicate what students should know and be able to do at various developmental levels (i.e., early elementary, later elementary, middle, and high school) within the content standards (Michigan Curriculum Framework, page 8).

CEDS (Common Education Data Standards) – A national collaborative effort to develop voluntary, common data standards for a key set of education data elements to streamline the exchange and comparison of data across institutions and sectors. (https://ceds.ed.gov)

CEPI (Center for Educational Performance Information) — Collects and reports data about Michigan's K–12 public schools. Initiatives in data collection and reporting facilitate school districts' compliance with the Federal *No Child Left Behind Act of 2001* and the Michigan Department of Education's accreditation plan, *EducationYes!*

CAT (Computer Adaptive Test)* — A computer adaptive test is one in which the next test question is selected (and typically administered) by a computer algorithm based on the student's performance on previously administered items. In such a way, an assessment can be tailored to the individual student's response, thereby adding precision to the resulting scores since students only see the test questions most appropriate for them.

Concurrent Users — are the Users who are logged in and using the Online Test Delivery System at any given time.

Content Area — is a Course or discipline of study, including reading, mathematics, science, social studies, and writing. (Content areas can also include languages, art, music, theater arts, and other disciplines not typically assessed on Statewide assessments.)

Core GLCE — A Grade Level Content Expectation, or GLCE, that measures an essential skill/content area. **Council of Chief State School Officers (CCSSO).**

Cut Score — A specific point on a score scale, such that scores at or above that point are interpreted or acted upon differently from the scores below that point (Standards for Educational and Psychological Testing, 1999).

Digital Test Item — An electronic item format allowing items to be transported using a standardized exchange file format or standard, such as QTI or APIP.

Disability — The Individuals with Disabilities Education Act (IDEA) has defined a disability as "mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance, an orthopedic impairment, autism, traumatic brain injury, another health impairment, a specific learning disability, deaf-blindness, or multiple disabilities."

DAS (**Division of Accountability Services)** and was formerly known as the Bureau of Assessment and Accountability (MDE) and before that the Office of Educational Assessment and Accountability (OEAA).
EDT — refers to Eastern Daylight Time.

Economically Disadvantaged — A student from a family with an annual income below a level that is based on low-income thresholds according to family size published by the U.S. Bureau of the Census, adjusted annually for changes in the Consumer Price Index. These students are eligible for free and reduced-price meals.

Educational Entity Master (EEM) — This is the single repository for all Statewide school and district information. It is managed by Center for Educational Performance Information (CEPI), which is part of the Department of Technology, Management and Budget. EEM data required for assessments (school, district, Intermediate School District) are transferred to the MDE Secure Site. Contractor access to these data will be provided via web services or direct table read from the MDE Secure Site database.

ELA — English Language Arts, subjects or content areas that include reading, writing, listening, and speaking based on the current State Standards. ELA aims at developing the student's comprehension and capacity for use of written and oral language.

Electronic Document Management Site (Master data repository site*) — The electronic repository of materials, processes, data, and services for the Contract. It serves multiple offices, departments, and Contractors and contains such items as schedules, requirements, and print-optimized forms of print-ready materials for Michigan's assessment and reporting systems.

ELL English Language Learner (also referred to as English learner) — The Michigan definition is a student who has a primary or home language other than English who—because of limited proficiency in speaking, reading, writing, and understanding the English language—requires alternative programs or services to equally access the local educational agency's total academic curriculum. These students are sometimes referred to as students with limited English proficiency (LEP).

ESEA — refers to Elementary and Secondary Education Act.

EST — refers Eastern Standard Time.

EGLCEs (Extended Grade Level Content Expectations) — GLCEs indicate what elementary and middle school students should know and be able to do in specific grades within the content standards. Extended GLCEs are those that have been "extended" (or reduced in depth, breadth, and complexity) to more appropriately reflect what the student population taking an alternate assessment based on alternate achievement standards should know and be able to do given their cognitive functioning level, curriculum, and instruction.

EHSCEs (Extended High School Content Expectations) — HSCEs indicate what high school students should know and be able to do in high school within the content standards. Extended HSCEs are those that have been "extended" (or reduced in depth, breadth, and complexity) to more appropriately reflect what the student population taking an alternate assessment based on alternate achievement standards should know and be able to do given their cognitive functioning level, curriculum, and instruction.

Extended response — refers to constructed-response items that require AI and/or handscoring. They are used to determine a student's performance on an assessment task, constructed-response item, or multiple-choice item.

Field Test — A test administration used to check the adequacy of testing procedures, generally including test administration, test responding, test scoring, and item test reporting. A field test is more extensive than a pilot test.

Field-test Item — A test question (often embedded within the operational items) that is inserted to obtain statistical information about its performance and ability to measure its intended content; this item does not count toward the student score; the statistical data are used in item selection for future tests.

Formative Assessment — The formative assessment process used by teachers and students during instruction to provide feedback in order to adjust ongoing teaching and learning and improve students' achievement of intended instructional outcomes.

Formative Assessment for Students and Teachers (FAST).

GLCE (Grade Level Content Expectation) — What elementary and middle school students should know and be able to do in specific grades within a content standard.

HSCE (High School Content Expectation) — What high school students should know and be able to do within a content standard.

Homeless — A homeless student is one who lacks a fixed, regular, and adequate nighttime residence. This includes students who live in shelters, abandoned buildings, cars, and public spaces, as well as students whose families share housing with other families because of economic hardship or who live in motels, hotels, trailer parks, or campgrounds.

Home-schooled — refers to Students who are home-schooled and take the State assessment in their local school district. Public school districts are required to administer State-level assessments to home-schooled students who wish to be assessed.

IDEA 1997 — refers to the Federal Individuals with Disabilities Education Act, which describes and regulates educational opportunities for individuals with disabilities. It also requires that students with disabilities be included in Statewide assessments. It was reauthorized in 2004.

IEP (Individualized Education Program) — A written Statement for each child with a disability that is developed, reviewed, and revised in a meeting in accordance with the Individuals with Disabilities Education Act regulations.

Interim Assessment — Assessments that provide educators with actionable information about student progress at determined intervals throughout the year.

ISD — Intermediate School District

IT — Information Technology

IBS (Item Bank System) — The State's Item Bank System is a State-developed web-based application that encompasses all of the following functions within a single framework: the Complete Item Development Life Cycle, Test Development Processes, and Test Composition Process. Note: All references in this Contract, whether called IBS or Item Bank System, are to the State's or MDE IBS.

LEP (Limited English Proficient) — The terms "limited English proficient" or "English language learner," when used with respect to an individual, mean someone who
is aged 3 through 21;
is enrolled in or preparing to enroll in an elementary school or secondary school;
(i) was not born in the United States or whose native language is a language other than English; (ii) (I) is a Native American or Alaska Native, or a native resident of the outlying areas; and (II) comes from an environment where a language other than English has had a significant impact on the individual's level of English language proficiency; or (iii) is migratory, whose native language is a language other than English, and who comes from an environment where a language other than English is dominant; and
whose difficulties in speaking, reading, writing, or understanding the English language may be sufficient to deny the individual (i) the ability to meet the State's proficient level of achievement on State assessments described in section 1111(b)(3); (ii) the ability to successfully achieve in classrooms where the language of instruction is English; or (iii) the opportunity to participate fully in society.

M-STEP (Michigan Student Test for Educational Progress) — One of five components of the Michigan Educational Assessment System, the M-STEP is the State's general education assessment for students in grades 3–11 and is used Statewide to assess student performance in specific content areas.

MDE (Michigan Department of Education) — is under the direction of the Superintendent of Public Instruction, this agency carries out the policies of the State Board of Education and implements Federal and State legislative initiatives.

MDE Secure Site — this is the entry point, or *Portal*,* where end-users access all components (paper-and-pencil and online) of Michigan's assessment and reporting systems. The Secure Site has a multi-tier security structure that controls user rights based on pre-established permissions. It is used for pre-identifying students

for online and/or paper-and-pencil assessments by assessment program, grade level, and content area; for ordering materials and tracking order status; for displaying which students have tested; and for identifying possible administration issues.

MEIS (Michigan Education Information System) — A security system implemented and used with various MDE and Center for Educational Performance and Information (CEPI) applications.

MI-Access — Michigan's alternate assessment system, which is composed of three assessment programs (Functional Independence, Supported Independence, and Participation) and is based on Alternate Achievement Standards (AA-AAS). MI-Access is intended for students for whom the general assessment, either with or without assessment accommodations, is not appropriate as determined by a student's Individualized Education Program (IEP) Team.

MI-Access Functional Independence (FI) Assessments — The MI-Access Accessing Print (reading), Expressing Ideas (writing), mathematics, and science assessments for students who have, or function as if they have, mild cognitive impairment.

MI-Access Participation (P) Assessments — The MI-Access English language arts, mathematics, and science assessments for students who have, or function as if they have, severe cognitive impairment.

MI-Access Supported Independence (SI) Assessments — The MI-Access English language arts, mathematics, and science assessments for students who have, or function as if they have, moderate cognitive impairment.

Michigan Curriculum Framework (MCF) — A resource for helping Michigan's public and private schools design, implement, and assess their core content-area curricula. The MCF includes three components: content standards, benchmarks, and grade level content expectations, which represent rigorous expectations for student performance and describe the knowledge and abilities needed to be successful in today's society.

MMC – refers to the Michigan Merit Curriculum.

MSDS (Michigan Student Data System) — Data submitted by school districts, including discrete information about individual students, such as age, gender, ethnicity, and program participation. The data collected via the MSDS are used to meet the reporting requirements of the Federal No Child Left Behind Act of 2001, including the determination of Adequate Yearly Progress (AYP).

Multiple Choice — The most common type of selected-response item, consisting of two parts: a stem and various response options.

NCLB (No Child Left Behind Act of 2001) — An act that reauthorizes the Elementary and Secondary Education Act, including Title programs I–IX. It is designed, in part, to (1) increase the accountability of States, districts, and schools; (2) expand choices for parents and students, particularly those attending low-performing schools; (3) provide greater flexibility for States and local educational agencies in the use of Federal dollars; and (4) increase emphasis on reading, especially for young children. In addition, it requires States to implement a single accountability system for all public schools and all students, and increases the number of times students—including those with disabilities and limited English proficiency—must be assessed.

NCME — refers to National Council on Measurement in Education.

Nonstandard Accommodation — Changes the construct being measured by an assessment or assessment item and, thus, results in an invalid test score. This includes any accommodation not deemed "standard" in the Assessment Accommodation Summary Tables approved by the State Board of Education.

Operational item — A test question with statistical information that is selected for use on a test that measures student perform on content ; this item does count toward the student score; the resulting statistical data are used in item selection for future tests.

OSA (Office of Standards and Assessment) – is an office of the Division of Accountability Services under which standards and assessment functions are consolidated.

OSPMR (Office of Systems, Psychometrics, and Measurement Research) — An office of the Division of Accountability Services under which psychometric, accountability, research, and data management functions are consolidated.

Performance Task — is a collection of items and activities that require multiple steps and may include components of other items in the task. These activities are meant to measure capacities such as depth of understanding, writing and research skills, and complex analysis, which cannot be adequately assessed with traditional assessment questions.

Pilot Test — A test administered to a sample of test takers to try out some aspects of the test or test items, such as instructions, time limits, item response format, or item response options.

Pilot Item — is a test question that is newly developed (often used in stand-alone testing) and that do not count toward a student score.

PNP — refers to Personal Needs Profile.

Pre-ID — refers to pre-identification of which students in each school will take which assessments with which accommodations.

Proficient — Sometimes expressed by a numerical "cut score" on a Statewide assessment, a student who is proficient in a content area demonstrates knowledge of that content area appropriate to grade-level expectations. Those expectations may vary based on the student's grade level and instructional setting. See Grade Level Content Expectation (GLCE), High School Content Expectation (HSCE), English Language Learner (ELL) Standards, Extended Grade Level Content Expectations (EGLCEs), Extended High School Content Expectations (EHSCEs), and Extended Benchmarks (EBs).

Progress — Annual gains made by the student, as evidenced by the acquisition of what the student knows and can do or by an increase in assessment scores or performance levels.

QAP — Quality Assurance Plan.

QTI (Question and Test Interoperability) — An information model that describes question (item) and test (assessment) data and their corresponding results reports. The QTI specification enables the exchange of this item, test and results data between authoring tools, item banks, test construction tools, learning systems, and assessment delivery systems.

SBE — State Board of Education.

Scoring Rubric — Descriptive scoring schemes that are developed by teachers or other evaluators to guide the analysis of the products or processes of students' efforts. Scoring rubrics are typically employed when judgment of quality is required and may be used to evaluate a broad range of subjects and activities (Practical Assessment, Research, & Evaluation, 2000).

SDs or SWDs (Students with Disabilities) — A student who is determined by an Individualized Education Program (IEP) Team or a hearing officer to have one or more of the impairments that necessitates special education or related services, or both, who is not more than 25 years of age as of September 1 of the school year of enrollment, who has not completed a normal course of study, and who has not graduated from high school. A student who reaches the age of 26 years after September 1 is a "student with a disability" and entitled to continue a special education program or service until the end of that school year.

Selected Response — In Michigan, this term is used to describe MI-Access Supported Independence and Participation items that take into account the degree of assistance provided by the test administrator(s) to a student in selecting a response to a picture card stimulus. The single digit response rating is A, B, C, or 1, 2, 3.

SF (Spiral Fixed-Form) — refers to Computer-based test containing multiple forms, or versions, of a test booklet where one or more sections vary from one test taker to another.

Short answer – The student types or writes in a word or phrase. 2-point constructed-response items.

SIS (Student Information System)* — is a software application that is designed for education establishments to manage student data. In Michigan, MSDS system contains student data that are transferred to the MDE Secure Site system for assessment management purposes.

Single Source of Truth – is the authoritative version which should be referenced or copied. Where security and database structure allow, the Single Source of Truth should be referenced directly rather than copied. When copies are required, the copy should be verified against the original, and where differences exist, the copy must be corrected to reflect the original.

Standard Accommodation — An assessment provision given so that the effect of a disability is minimized and the student is provided an opportunity to demonstrate the degree of achievement he or she actually possesses. It does not change the construct being measured; therefore, it yields valid assessment scores.

State Collaboratives on Assessment and Student Standards (SCASS).

Summative Assessment — A test that is used to evaluate student competency. A summative assessment is commonly delivered at the end of the school year during a fixed administration window and is commonly aligned with State standards.

Technology Enabled (TN) — Computer-based items that include features, such as reading the item to the test-taker in English or another language, such as Spanish or Arabic.

Technology Enhanced (TE) — Computer-based test items that allow students to reorder text, show evidence and use drop-down menus for responses.

Test Administration* — Management of test windows, proctor assignment, class/group assignment for reporting, and student identification methods are components of the Secure Site. This information is provided to administration Contractors via a direct table read or web services interface.

Test Cycle — Refers to the period of time, usually a range of dates, for administering an assessment. In Michigan, current assessment cycles are either fall or spring, with a specific date range for each. Interim assessments will have pre- and post- test cycles, which are fall and spring for year-long subjects or courses; September and January or February and May for ½ credit courses.

Test Delivery* **for Online Assessments** — The overall responsibility of this component is to securely deliver the assessment to the student, securely store the student responses, store other information about how the student responded (i.e., time to answer, time to render for the student, etc.), and deliver the test items in the proper accessible format that the student needs. The Test Delivery System must also include two subcomponents:
Student Workstations: This is a software subcomponent used to interact with the student. It is responsible for delivering the items to the student and gathering the responses and response metadata. It also contains the tools needed by the student to take the test (e.g., calculators, tables, accessibility tooling, etc.).

Proctor Workstation: This is a software subcomponent the proctor uses to manage the test delivery. It allows the proctor to start and stop, or suspend and resume the test for the testing group or individual students. It also allows the proctor to monitor student progress, as well as helping students when they are having issues.

Test Event – The administration of an online computer-adaptive test.

Test Packager* **for Online Assessments** — In year one of the Contract, the Online Contractor will provide the software to convert the IBS test items for use with the online test delivery engine. This software will have the capacity to receive Test Package files via a web service or direct table read interface of the IBS system and, once properly rendered by the Online Contractor, receive the online version of the item from the Test Delivery System for inclusion in the IBS.

Test Registration* — Michigan students are registered for assessments, including assignment of class/group numbers for test administration/proctors, and the same or different class/group numbers for reporting using the pre-identification component of the MDE Secure Site.

Theta Value — Estimate of the relationship between a test item and the underlying attribute that is being measured. A distinction is made between the values that are actually obtained in a test setting and a hypothesized "true" underlying value.

UIC (Unique Identification Code) — is a State-assigned code that allows the State to track student information without using a student's name.

WorkKeys® — A job skills assessment system that helps employers select, hire, train, develop, and retain a high-performance workforce.

* Consortium terms for online test components are italicized.

**EXHIBIT A
STATEMENT OF WORK
CONTRACT ACTIVITIES**

This exhibit identifies the anticipated requirements for the Administration, Scoring and Reporting of Statewide Assessments and for providing Psychometric Services upon request from the MDE.

Background

Michigan's K-12 public educational system consists of 545 local school districts and 298 public school academies. Additionally, there exists 56 Intermediate School Districts, or regional educational service centers, which aid school districts in specific regions of the state by offering support services and leveraging resources. Altogether, there are 3,536 schools serving over 1.5 million students.

The MDE is responsible for development and administration of multiple K–12 student assessment programs, as well as the high-stakes use of the results of those programs for accountability and evaluation purposes. Therefore, the work performed by the Contractor must be of the highest quality, and must conform to the most recent Standards for Educational and Psychological Testing as published by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education.

MDE and the Contractor are responsible for ensuring that all tasks and activities that are carried out as part of the Contract comply with all legislation, regulations, and policies surrounding assessment(s). These include, but are not limited to the following, where applicable:
The Michigan State School Aid Act, Section 104 or successor legislation.
The Michigan School Code or successor legislation.
The Michigan State Board of Education (SBE) policy on learning expectations for Michigan students, or successor policies.
The Michigan Assessment of Remedial Assistance Programs or successor legislation.
The Michigan SBE policy to include all students in the Michigan Educational Assessment System, or successor policies.
The Elementary and Secondary Education Act (ESEA) Flexibility Request approved by the U.S. Department of Education (USED), July 2012.
The Federal reauthorization of the ESEA, currently known as the No Child Left Behind Act of 2001 (NCLB), or successor legislation.
The Federal Individuals with Disabilities Education Act (IDEA), or successor legislation.
The Federal Americans with Disabilities Act (ADA), or successor legislation.
The Federal Family Educational Rights and Privacy Act (FERPA), or successor legislation.
The Federal American Recovery and Reinvestment Act (ARRA), its various components, or successor legislation.
The Federal guidelines and regulations regarding NCLB, IDEA, ADA, or ARRA, including both specifications for assessment programs as well as specifications for accountability using the results from those assessment programs.

This Contract has been developed as a result of updates to the State School Aid Act, Sec. 104. This law requires the implementation of a fully operational summative assessment system beginning in the 2015-16 school year, aligned to Michigan's State content standards.

All of the assessment programs developed and administered by MDE are mandated by one or more of the laws and policies listed above. As such, Michigan's assessment systems are subject to federal and State audit, including all contracts that are required to implement the programs.

Both the NCLB and the Michigan State School Aid Act, Section 104 require content alignment to State standards. The Michigan SBE adopted the current English Language Arts (ELA) and Mathematics standards in June of 2010. Science and Social Studies assessments must align to Michigan's Grade Level Content

Expectations (GLCEs) and High School Content Expectations (HSCEs) which were adopted by the Michigan SBE as Michigan's State standards in 2004. The summative alternate assessments are aligned to Michigan's Extended Grade Level Content Expectations (EGLCEs) and Extended High School Content Expectations (EHSCEs).

Summative assessment results will be used to measure student proficiency and progress over time (or growth) for State and federal reporting purposes. The Michigan State School Aid Act, Section 104c specifically requires student growth measures to be reported where such measures can be calculated.

The interim assessment programs are being developed in response to education reform efforts that measure student academic growth at more frequent intervals and can be used as one measure of educator effectiveness. Appropriations for administering, scoring, and reporting (and maintaining) the interim assessment program were not provided for the 14-15 school year (FY 15), but may be provided for the 15-16 school year (FY 16) and/or beyond. The interim assessment program consists of optional, online pre-, mid-, and post-test assessments at grade levels K-8 and in high school courses for which Michigan Merit Curriculum credit is required. The interim assessment program is currently in development phases (including pilot and field-tests) using funds appropriated for that purpose in previous years. If future State appropriation is secured for operational administration, a phase-in plan will be developed to administer the interims operationally as part of this contract.

The Scope section details the summative, alternate summative, and interim assessment programs included in this Contract.

During the term of the Contract, new legislation, SBE policy, and/or appropriations funding levels may require that a current program be modified and/or other programs added. The Contractor must be reasonable and flexible in accommodating such changes. All proposed changes must be approved through the change management process (explained further in Section 4.2.3).

Michigan desires to ensure that its assessment solutions are of the highest quality, follow current best practices, are consistent with Statewide assessment related initiatives, and minimize burdens to schools, test administrators, and students. To do so, Michigan actively utilizes a number of nationally recognized sources for guidance, as well as common-sense criteria for reducing burden, assuring timeliness of reports, and maximizing data quality.

Scope
This Contract includes Statewide paper-pencil assessments, constructed response scoring, reporting, psychometric services and other support services, as described in this Contract; beginning with the Fall 2015 administration and continue for three years (2015-16, 2016-17, 2017-18) with five, one-year options for (2018-2019), (2019-2020), (2020-2021), (2021-2022) and (2022-2023), each at the State's discretion. The summative assessments are to be delivered online with a paper-pencil option for; 1) those students who are unable to take an online assessment due to an Individualized Education Program (IEP), medical condition, or linguistic/cultural status; and 2) those schools who receive an approved waiver from MDE for a test cycle due to not being technology ready. Online assessments, including possible interim assessments, will be provided thru a separate contract.

Based on the need to support educator evaluation, and on consistent public comment regarding the need for interim assessments, constructed response scoring for interim assessments has been included in this Contract. Interim assessments are optional for district adoption, will be administered online only and must be available online for schools at multiple points during the school year so that pre-, mid-, and post- assessments may be administered. Provision of Interim Assessments is pending appropriations from the Michigan legislature. If sufficient funding is not available, that work will not be performed, and no line items from the cost sheet (Exhibit E) related to interim assessments may be used for charging the State for services rendered. Work on interim assessments must be approved by the State before it may commence.

Please refer to the table below for the assessments included in the scope of this contract:

Michigan's Assessment System

Assessment	Delivery Mode	Content and Grades
Summative – General	Paper-Pencil	Mathematics: 3-11 ELA: 3-11 Science: 4, 7, and 11 Social Studies: 5, 8, and 11
Summative Alternate – FI*	Paper-Pencil	Mathematics: 3-11 Accessing Print: 3-11 Science: 4, 7, and 11 Social Studies: 5,8, and 11 Expressing Ideas: 3-11
Summative Alternate - P/SI*	The assessment is delivered via paper (picture cards). Responses are captured and scored via online mode, thru a separate contract.	Mathematics: 3-11 ELA: 3-11 Science: 4, 7, and 11
Interim	Online	Mathematics: K – 12 ELA: K – 12 Science: 3 - 12 Social Studies: 3 – 12

Functional Independence (FI): Target level of the MI-Access Assessment, generally given to students with mild significant cognitive impairments; Supported Independence (SI): Mid-Range skill level of the MI-Access Assessment, generally given to students with moderate significant cognitive impairments; Participation (P): Basic skill level of the MI-Access assessment, generally given to students with severe cognitive impairments. Participation at any level of the MI-Access Assessment is determined by the student's IEP.

Requirements

The Contractor's solution must provide a paper and pencil test administration system for Michigan students as well as an electronic reporting system that will provide rich information for districts, schools, educators, parents, and students.

The Contractor's solution must include administration, scoring, and reporting of a consortia-developed assessment for one or more components of Michigan's assessment system, plus administration, scoring, and reporting of any Michigan-developed portions of the system that are not covered by the consortium based assessment. At Michigan's option, this may include field testing of Michigan-developed test questions for augmenting and/or replacing consortia content over time as new test questions are developed by Michigan and/or its agents.

Materials created by the Contractor and distributed to the Districts and Schools must meet accessibility standards. These standards will be further defined during requirements gathering. The list of material includes:
Webpages
Web Applications
PDFs
Videos
Printed Materials
Include a nondiscrimination notice and accommodation information, as defined during requirements gathering.

1.1.1 Content Alignment

Alignment of Michigan's assessment system to current Michigan content standards and benchmarks is a key factor in the successful implementation of Michigan's assessment system. Staff from the Office of Standards and Assessment routinely review content alignment of all content in our Statewide assessments. This frequently involves collaboration with other offices within MDE, with our contractor for item development, as well as stakeholders from around the education community in Michigan.

Michigan's State standards for assessments covered by this Contract are currently as follows: (and can be viewed at http://www.michigan.gov/mde/0,4615,7-140-28753_64839_65510---,00.html)
For General Summative and Interim Assessments:
Mathematics: Grades K-12 – Michigan State Standards for Mathematics.
English language arts: Grades K-12 – Michigan State Standards for English language arts.
Science: Grades 4, 7, and 11 (summative), Grades 3-12 (interim) – Grade Level Content Expectations (GLCEs) and High School Content Expectations (HSCEs).
Social Studies: Grades 5, 8, and 11 (summative), Grades 3-12 (interim) – Grade Level Content Expectations (GLCEs) and High School Content Expectations (HSCEs).
For Alternate Assessments:
Michigan's Extended Grade Level Content Expectations (EGLCEs) and Extended High School Content Expectations (EHSCEs) for English Language Arts Grades 3-11.
Michigan's Extended Grade Level Content Expectations (EGLCEs) and Extended High School Content Expectations (EHSCEs) for Mathematics Grades 3-11.
Michigan's Extended Benchmarks (EBs) for Science, grades 4, 7 and 11.
Michigan's Extended Grade Level Content Expectations (EGLCEs) for Social Studies Grades 5 and 8.
Michigan's Extended High School Content Expectations (EHSCEs) for Social Studies Grade 11.

Due to the high stakes nature of all of our assessment programs it is essential that the Contractor administers or provides assessment content that is aligned to Michigan's State standards. Because of this, the Contractor must adhere to the following requirements:

For any consortia-based or Michigan-developed content the Contractor agrees to:
Collaborate with the Office of Standards & Assessment's test development unit to assist in any content alignment review either internally or with educators from Michigan.

1.1.2 Reserved

1.1.3 Reserved

1.1.4 System Interface with Secure Site
The Contractor must interface with the MDE Secure Site system using direct database reads and writes via a VPN connection to a vendor interface portion of the Secure Site database. The Secure Site utilizes a State-created and maintained user authentication system called MEIS.

1.1.4.1 District and School information:
The Secure Site has all of the District and School information needed by the Contractor for testing. This includes the information about the entities along with the District and School contact information for each assessment. This also includes shipping information for the Districts and Schools.
District and School Pulls
The Contractor must interface with the MDE Secure Site system using direct database reads and writes via a VPN connection to a vendor interface portion of the Secure Site database for all data exchanges.
The Contactor must pull District and School information from the secure site on a date identified in the project schedule.
The Contractor must pull updates of the District and School information at least daily.
Requirements Gathering
The Contractor must participate in Requirements Gathering with MDE staff to determine and document the registration pull method, frequency, and define the specific Quality Assurance Plan (QAP) including User Acceptance Testing (UAT) process and specifications.
Requirements must be reviewed and revised as needed for each assessment cycle.
Quality Assurance Plan
The Contractor must conduct quality assurance testing of the district and school information and session pulls for each assessment.
Both MDE and the Contractor will analyze, for accuracy, the results of the initial pull of district and school

information and the initial pull of sessions. The Contractor must resolve all quality issues related to their data pull processes per the date in the project schedule.

Both MDE and the Contractor will analyze, for accuracy, the results of the update and new pull of district and school information. The Contractor must resolve all quality issues related to their data pull processes per the date in the project schedule.

1.1.4.2 Registration of Students for Testing:

A student must be registered in the MDE Secure Site by a District or School to take any of the State assessments during the school year. There are various time frames when the Secure Site will be opened to allow Districts and Schools to register their students for each assessment. Typically the window for registration opens much earlier than the testing window to allow Districts and Schools time to get all of their students registered.

The Contractor must pull student registration information from the MDE Secure Site vendor interface database tables for each assessment to use for paper and pencil assessments. The student registration data is loaded by the Contractor and is used for label printing by the Contractor for paper and pencil testing. Student registration barcode labels are attached to answer documents by school personnel to correctly identify a student and to associate the student's demographic information with his or her answer document.

Pre-ID student labels are printed on different dates that are identified in the schedule once the test window has been established (see Registration Pull section below). For the general assessment initial printing, the Pre-ID student data is accessed by the Contractor for the initial test materials for creation of the student labels. Labels for students who register after the initial pull and whose demographic information is not contained in the previous pre-ID label shipment are printed locally by school district personnel in the schools. The student demographic data are accessed by the Contractor from the MDE Secure Site vendor interface database tables.

Registration Pulls

Initial Pull

The Contractor must pull the initial list of registered students for an assessment on a pre-established date according to the schedule. The registration information is printed onto barcode labels for paper and pencil.

Requirements Gathering

The Contractor must participate in Requirements Gathering with MDE staff to determine and document the registration pull method, frequency, and define the specific UAT process and specifications.

Requirements must be reviewed and revised as needed for each assessment cycle.

Quality Assurance Plan

The Contractor must conduct quality assurance testing of the paper and pencil student registration for each assessment.

The results of the initial pull of students registered are analyzed for accuracy by both MDE and the Contractor.

The results of the printed barcode labels are analyzed for accuracy by both MDE and the Contractor.

The Contractor must resolve all quality issues related to their data pull processes per the date in the project schedule.

1.1.4.3 Reserved

1.1.4.4 Material Ordering

A District or School Administrative User will order any materials needed for a Paper-Pencil assessment on the MDE Secure Site. There will be a pre-established ordering window for each assessment where the Districts and Schools will enter their orders into the Secure Site. The Contractor must pull this information from the MDE Secure Site once for the initial orders and then daily for additional orders.

Initial Material Order Pull and Status Update

The Contractor must pull the initial list of material orders for an assessment on a pre-established date according to the schedule.

The Contractor must update the status on all orders based on MDE order status codes.

The Contractor must, for paper-pencil testing push the material order packing list information for the initial

material orders.
The Contractor must push the material order shipping information for the initial material orders.
Additional Material Order Pull
The Contractor must pull the additional list of material orders for an assessment at least daily (frequency of pulls confirmed during requirements).
The Contractor must update the status on all orders based on MDE order status codes.
The Contractor must push the material order packing list information for the additional material orders.
The Contractor must push the material order shipping information for the additional material orders.
Emergency Material Order Pull
The Contractor must pull the emergency list of material orders for an assessment on a pre-established frequency.
The Contractor must update the status on all orders based on MDE order status codes.
The Contractor must push the material order packing list information for the emergency material orders.
The Contractor must push the material order shipping information for the emergency material orders.
Requirements Gathering
The Contractor must participate in Requirements Gathering with MDE staff to determine and document the registration pull method, frequency, and define the specific UAT process and specifications.
Requirements must be reviewed and revised as needed for each assessment cycle.
Quality Assurance Plan
The Contractor must conduct quality assurance testing based upon a pre-approved by MDE plan of the initial, additional and emergency material ordering process for each assessment.
The results of the initial, additional and emergency material ordering process are analyzed for accuracy by both MDE and the Contractor.
The Contractor will resolve all quality issues related to their material ordering processes per the date in the project schedule.

1.1.4.5 Single Sign-On
A District or School User must be able to log into to the MDE Secure Site system to link to the Reporting System from the Secure Site without logging in again.
Reporting System Single Sign-On
The Contractor will work with MDE to define, create and test the ability for users to log into the MDE Secure Site and be able to make a selection on the MDE secure site that will take the user to the Reporting System with the credentials that were entered on the MDE Secure Site.
The Contractor must pull user credentials form the MDE Secure Site on a pre-set frequency to keep user profiles up to date.
Requirements Gathering
The Contractor must conduct Requirements Gathering sessions with MDE staff to determine and document the Single Sign-On and define the specific UAT process and specifications.
Quality Assurance Plan
Contractor must conduct quality assurance testing of the Reporting System Single Sign-On
The results of the Single Sign-On are analyzed for accuracy.

1.1.4.6 Testing Certification Process
The MDE Secure Site provides a process for schools and districts to certify that the student enrollment is correct, students either not tested or unable to test is correctly reported and that evidence is received confirming that all students (scheduled to test) took the test online or via paper and pencil.
The Contractor must update the MDE Secure Site daily, using direct database write, with the records of scanned student answer documents to be used in the testing certification process. This data will need to be provided on a pre-established date.
The Contractor must be able to pull issues (examples defined below) from the Secure Site that have been entered by Districts and Schools, research the issue, and update the Secure Site with a response.
Examples for paper and pencil may be that the district staff checked the list of students that were tested and a student they thought they tested is not showing up. The district staff enters an issue into the Secure Site. The Contractor pulls this issue which would identify the missing student, research the issue, and update the issue

with the resolution, i.e. students answer document found in non-scoreable box.
The Contractor must pull back updated student demographics, student combines and student moves that have occurred during the test certification process for use in reporting.
The Contractor must ensure that all student records for paper and pencil testing have a barcode assigned to them before they are sent to the Secure Site for the Testing Certification process. Any paper and pencil answer document that is returned without a barcode must be scanned and sent to the Secure Site to go through the assign barcode process. Once the barcode has been assigned to the record the Contractor must pull back that barcode and update the student record before it is sent to the Secure Site for the Testing Certification process.
The Contractor must provide a method for a State user to view all paper and pencil images for use during the test certification process.

Image Scanning of Print Documents

The Contractor must scan and image-capture answer documents and correct scanned data, as needed and as defined in requirements gathering.

The Contractor must use an image-capture system to scan all answer documents.

The image capture must include a student bar code that is either over-printed or pre-applied from the initial pre- ID pull, or a pre-printed label from the update pull or new enrollees at the time of testing.

The quality of the image must be at least 200 dpi with a 256-level gray-scale (eight bits per pixel). This allows darker mark, erasure analysis using images and provides high-quality images that can emulate traditional score processes and replace paper storage of scannable documents.

The student's selected intended mark (the darkest mark) in a string must be provided by the Contractor along with the raw score for a mark, pencil mark value and the scale used, where the 0 value of the mark is equivalent to paper and the highest value of the mark is provided.

All TIFF image documents must be indexed by the Contractor in a manner that allows for all of a single student's images to be indexed as a unit. The demographic data from the assessment document (bar code, lithocode, and scan batch code and date) must also be included in the record as identifiers of the student and index information. MDE requires from the Contractor an image of the entire document (not image clips or after-scan application of templates).

The Contractor must host the images to allow research and analysis to support the MDE Test Certification process, to begin within one day of scan completion for a designated grouping or batch of documents.
All research and analyses are based on student data that are transaction-based in Educational Entity Master (EEM) and the MDE Secure Site. The Contractor must provide regular transmissions of scanned batch data and access to indexed images, at least once each day, allowing for timely resolution of any Contractor or MDE research and analysis (erasures, duplicate student records, etc.).
The scanned image is used for Contractor and MDE edits and research (missing tests, duplicate tests, moves, etc.).

The Contractor must store the scanned answer document images for a period of three months.
At the conclusion of the three months, the Contractor must transfer to MDE, via two duplicate hard drives encrypted to protect student information, the scanned answer document images from each paper-and-pencil test event for the purposes of image preservation.
Requirements Gathering

The Contractor must conduct Requirements Gathering with MDE staff to determine and document the Testing certification processes and define the specific UAT process and specifications.
Requirements must be reviewed and revised as needed for each assessment cycle.

Quality Assurance Plan
The Contractor must conduct quality assurance testing per the MDE-approved QAP plan of the testing certification process.

1.1.4.7 Other System Interfaces
The method used to interface with the Secure Site is direct table read and write to the vendor interface database tables.
The Contractor must pull all data used for scoring and reporting from the MDE Secure Site. This includes the assessment test map table, the raw to scale score table, the reporting group table and the point's possible table. The method used to interface with the Secure Site is direct table read and write to the vendor interface database tables. Contractor must push all assessment data (item-level detail, student response data, raw scores, etc.) to MDE Secure Site vendor interface database tables.
The Contractor must push the erasure analysis data for Paper-Pencil testing to the MDE Secure Site.
Requirements Gathering
The Contractor must conduct Requirements Gathering with MDE staff to determine and document all system interfaces and define the specific UAT process and specifications.
Requirements must be reviewed and revised as needed for each assessment cycle.
Quality Assurance Plan
The Contractor must conduct quality assurance testing based upon the MDE-approved QAP of the system interfaces.
The Contractor must push the erasure analysis data for Paper-Pencil testing to the MDE Secure Site.

Test Items and Maps
Fixed Form Test Maps for Michigan Developed Tests
A test map is a table showing the items appearing on a test, including their form number, position number, and metadata. Test maps may include multiple "forms." Forms are variations of a test that use different items and/or item orders. One test map will include a unique record for each unique item appearing on all the forms for a test. Test cycles include multiple test maps to cover multiple programs, content areas, and grades. MDE will develop and approve test maps for paper and pencil tests using the Michigan IBS.
The Contractor must access the fixed form test map via direct table read. The Contractor must be able to update previously imported tables if changes arise during the test development and review process.
The Contractor must use the test map information from the direct table read to perform scoring/key checks.

1.1.6 Distribution of Forms
For the last few years, MDE has been developing numerous items in multiple grades and content areas and targeted towards several student populations. The ultimate goal is to possess an item bank with enough depth and breadth of content and item difficulty to support a robust computerized adaptive testing solution. Currently, programs are in differing stages of maturity. As a result, test delivery of Michigan developed assessments will be focused on the delivery of fixed form assessments until it is determined that sufficient items exist to begin adaptive testing.

This section describes the MDE requirements for distributions of forms in the case of linear tests (fixed forms). Fixed forms (paper/pencil): MDE will develop multiple forms per Program, Content (that is, subject) Area and Grade (P/C/G). It is anticipated that approximately 20% of the student population will be assessed with paper/pencil assessments during the first year of the Contract with diminishing numbers in subsequent years. The Contractor must provide a plan, for MDE's review and approval, to distribute the forms equitably while also leveraging known demographics of the tested population to ensure the forms are also distributed equally across those subgroups. The relevant data will be available after Contract initiation via direct table read. Form assignment may differ across grade levels and content areas, and will be specified during requirements gathering. In the case of a breach or other irregularity where it is determined an emergency form is needed, the Contractor must distribute the form not assigned to the school to serve as the breach form.
Based on the MDE approved sampling plan, the Contractor's solution will use known demographics of the paper/pencil population to distribute forms equitably overall and across gender, ethnicity, socio-economic status, students with disabilities and English language learner subgroups.

Accessibility
Accessibility deals with test interface and administration solutions that allow students' assessment results to not be affected by disability, gender, ethnicity, or English language ability. These options ensure validity of assessments and provide equitable testing opportunities. The allowance for these tools which promote student access but do not affect the content being assessed are required by the NCLB.
Requirements Gathering and UAT
Requirements gathering and UAT processes are an important part of assessment development and ensure a quality product and testing experience.
Requirements must be reviewed and revised as needed for each assessment cycle.

Paper-Pencil Accommodated Formats and Materials
Students taking paper-pencil versions of the assessments must have access to the accommodated forms of the testing materials based on disability or linguistic need. Additionally, accompanying resources for test administration of some of these accommodated formats must be available.

For Paper-Pencil Accommodated Formats and Materials with Fixed Form Testing, the Contractor must make available:
 Enlarged Print (student test booklets)
Braille (contracted and Nemeth code student test booklets)
Accompanying Documents for braille administration (administrator booklet)
English Audio CD's (directions and item)
Spanish Full-text (student test booklets)
Spanish Audio CD (directions and items)
Arabic Full-text (student test booklets)
Arabic Audio CD (directions and items)
English, Spanish, Arabic Glossary (available by program, subject, grade)
English Reader Script for Michigan developed assessments
Contractor must have the ability to package accommodated materials into a kit to ship to districts/schools. The make-up and quantity of materials to be included in these accommodated kits must be approved by MDE. (E.g. large print test booklet + regular answer document)

1.1.8 Test Session Data
With paper-pencil testing, students write responses in answer documents. Those documents are scanned, the image captured and the responses compared against a key or rubric. The scanned image and actual student answer document can be saved indefinitely to be kept as a permanent record. The ability to keep student assessment records is crucial as this work is being carried out to comply with federal and State statutes using tax payer dollars. As such, all records must be available for audit.

1.1.9 Scoring
Scoring – Machine
This section encompasses the scoring of multiple-choice (MC) and gridded response items associated with the paper/pencil assessment. The Contractor must perform all tasks and related subtasks necessary, including, but not limited to:
Contractor must score all items.
Contractor must provide a scoring system that has the capability to translate student responses into a score for each item.
Fixed Form Tests - Contractor must provide MDE with all student score response data and raw item score data via direct table read.
QAP
Contractor must develop requirements for scoring QAP in collaboration with MDE and subject to approval by MDE.
All scoring information must be made available both to MDE and to independent evaluators or auditors as required.

Contractor must provide a QA monitoring process regarding scoring and evidence of reporting of the results. Contractor must provide MDE with evidence of continued QA monitoring including results regarding scoring accuracy throughout the contract period.

Contractor must provide QA environment that mimics productions, system instructions, and test cases to MDE for MDE to perform UAT on scoring process.

User Acceptance Testing

The Contractor must conduct UAT with appropriate MDE staff using a pre-approved test deck. This activity should leverage the QA environment defined earlier in this section.

The Contractor and MDE effort, based upon the test deck, lasts from a few days to an entire week.

Scoring for Constructed-Response (CR)

The Contractor scores all CR items, both online and paper and pencil.

The Contractor must work with the Online Contractor and MDE to develop requirements, including timelines and frequency, for CR scoring.

The Contractor must conduct UAT with the Online Contractor to verify the export fully meets the requirements and that student response data is not missed/lost or compromised in the process.

The Contract must define Quality Assurance as defined in the requirements with the Online Contractor and subject to MDE approval.

This section includes the components of Rangefinding, Human Scoring (hereafter referred to as Hand Scoring), and Artificial Intelligence (AI) Scoring.

The Contractor must perform all tasks and subtasks related to the scoring of all CR items working in close cooperation with MDE staff.

In coordination with MDE staff, the Contractor must conduct rangefinding sessions to prepare the scoring guides for CR items on assessments.

The Contractor is responsible for all costs associated with rangefinding meetings.

The Contractor must plan on rangefinding for all Michigan-developed CR field test items once online and/or paper-and-pencil CR are available for scoring, both during and/or immediately following the administered assessment.

Rangefinding meetings for Michigan developed assessments are held in Michigan with trained active Michigan teachers from the content area and grade level tested. For meeting specifics, refer to Section 4.3.

Rangefinding Implementation Steps:

In preparation for rangefinding, the Contractor must work with MDE staff to identify a selection of schools/districts in order to ensure that papers selected for rangefinding represent the full range of student achievement as well as provide exemplar reader-training papers. If determined during requirements gathering that online review is not feasible, the Contractor must make copies of all rangefinding papers needed by the rangefinding committee members to prepare scoring guides for the assessment items.

The Contractor must ensure that assessment items, student responses and scoring guides remain secure before, during and after the rangefinding session.

Rangefinding committee members must be trained using Training Sets comprised of anchor papers from previous assessments. In the first year covered by the Contract, this must be coordinated with current contractors for the programs.

As the final step in rangefinding for the assessments, the Contractor must group papers by the same score point to ensure consistency in applying the scoring guide.

If AI is used for scoring, Contractor must use an adequate number of rangefinding papers per CR item for model building as a step in validating the AI scoring. The number will be defined during requirements gathering.

AI Scoring

The Contractor must specify which AI engine they plan to employ. MDE must approve prior to its actual use.

The Contractor must conduct regularly scheduled performance checks and provide evidence for the scoring of CRs, using a wide variety of new and previously scored student papers (both AI and hand scored) using the AI engine.

Contractor must continue to provide such evidence on demand throughout the duration of the Contract.

Contractor must use scoring and QA processes, which are pre-approved by MDE

Contractor's scoring and QA processes must include psychometricians, individuals with documented hand-scoring experience, and technical staff.

Contractor processes for AI recalibration, retraining and delivery must be demonstrated, included as a required resource, and approved by MDE.

The AI engine must have the capability to score items with a range of score points. (Type and styles of writing; i.e. narrative, informational, argumentative, and other types of constructed responses (i.e. math)).

The AI engine must include an automated process to provide a randomly selected pre-determined portion of the papers to be hand scored. (See Hand scoring for more information).

Scoring procedures must meet the same standards for accuracy and reliability, without the loss of diagnostic information, which exists for human scoring of the same item type.

Resources for training the AI scoring engine and evidence that the engine meets accuracy and reliability standards must be documented and included as part of the process approved by MDE.

Contractor's AI validation process must be representative of student responses across the entire population, including a range of score points, types and styles of writing.

Contractor must provide current evidence that the AI engine performs as well as human readers.

UAT

The Contractor must conduct UAT at the scoring location with appropriate MDE staff to validate AI scoring processes.

Human or Handscoring

The Contractor must perform all required handscoring of CR items and has the responsibility to perform the following tasks:

Establish a procedure to screen scorers to ensure employment of reliable item scorers.

Hire, pay, train, retrain, and release scorers (i.e., item readers as necessary).

Ensure that all items to be double-read are read by two different staff members.

Maintain procedures for second readings.

Ensure third readings are required for non-adjacent scores.

Scoring packets must be randomized or staggered so that papers from the same school and district are not scored together.

Establish efficient and secure paper and electronic flow procedures.

All requirements in this section are necessary to ensure accuracy of the AI engine.

The first time AI is used for a new type of item or score solution, there is a 20% human read-behind. The second time and subsequent times AI is used for the same type of item or score solution, there is a 10% human read-behind.

If AI is not used for a specific type of test within the Online Test Delivery System, 100% of all CR items for print and/or online tests will require human handscoring.

Individuals engaged in handscoring must sign the Security Compliance Agreement and comply with the content within the Agreement.

Materials and Documents

The Contractor must provide a secure process, subject to MDE approval, for sending the student responses (print or online) to the Contract scoring center – that includes the method for selecting responses for AI read-behind, frequency of transmission to Contractor scoring center, and receipt/importing of answer documents/scores once scoring is complete.

Contractor must provide a process, subject to MDE approval, for sending the student responses to print or online CR items – including the method for selecting responses for AI read-behind, frequency of transmission to Contractor scoring center, and receipt/importing of answer documents/scores once scoring is complete.

The Contractor must provide a process for sending the paper-pencil or online student responses items including:

Including the method for selecting responses for AI read-behind.

Frequency of transmission to Contractor scoring center.

Receipt/importing of answer documents/scores once scoring is complete.

For paper-and-pencil documents, scoring of constructed-response items must proceed as soon as the answer documents scanning and imaging processes have begun and rangefinding has been completed.

For online testing, scoring of CR items must proceed as soon as the response is provided to the Contractor from the online assessment system.

The Contractor must ensure that no scorers have access to any student information except the written response to the item(s).

All scorers must have a Bachelor's Degree. The names of all scorers must be made available and provided to MDE upon demand for audit purposes. Information available includes demographics, educational background, and scoring experience.

The Contractor must provide all training and supervision of these scorers, including their supervisors.

The scoring of the assessments may occur outside of the State of Michigan, but must be within the United States.

Handscoring Implementation Steps: The Contractor must implement and maintain a QA process for handscoring activities which must include each of the elements below.

The Contractor must ensure:

Random assignment of one reader to each constructed response.

Random assignment of a second reader to a 10% sample of all responses scored by any given reader.

Maintaining a mechanism that ensures a second reading of a difficult-to-score response upon the request of a reader.

Re-scoring of all responses scored by a reader identified as poor-performing, and elimination of that rater's scores from the data.

All handscoring activities are provided in an accurate manner as defined during requirements gathering.

Implementing and maintaining a QA process for handscoring activities that meets MDE approval.

Providing the appropriate hardware and software necessary for handscoring (or e-scoring) operations.

Scoring word-processed answer documents that are used as an appropriate accommodation for students.

The Contractor must ensure that AI or human scorers are capable of identifying a child or individual in danger (to himself/herself or others). The child in danger or "troubled child" alert process will be established in collaboration with MDE and must include:

Immediate (day of reading) notification to MDE and the child's principal or superintendent by telephone.

Record of Incidence in a secure location readily accessible to MDE.

A copy of the student response to be shared with MDE and the child's principal or superintendent to be available within 24 hours of notification.

Taking immediate action following score inquiries and challenges. The score inquiry and challenge criteria will be provided by MDE during requirements gathering.

Maintaining scoring reliability among assessment items and provide MDE with reader production and reliability statistics on a daily basis, including reader training results. Inter-rater reliability must be at least 80%. The following information is to be provided daily in an easily readable format approved by MDE:

Inter-rater reliability (describe calculation).

Estimates of rater harshness (e.g. FACETS-style analysis of rater effects estimated concurrently with examinee achievement).

Percent of papers requiring a third reading.

Daily individual reader reports for the first week and weekly reader reports starting the second week.

Validity reports on reader scoring.

Score distribution across score points.

Scoring data is provided to MDE as requested, relevant to rangefinding and CR item scoring. Please note: If MDE finds questionable scorer reliability indications, MDE has the right to have the affected papers re-scored at no cost to MDE.

Providing accurate results on student responses to CR items in a timely manner as defined during requirements gathering.

QAP for Hand-Scoring

The Contractor must establish and detail methods and thresholds for identifying poor-performing raters to be used in all hand-scoring operations, and must finalize those methods and thresholds in coordination with MDE.

The Contractor must:

Develop and describe, upon request by MDE, the procedures to monitor scorer training, production, and reliability on a daily basis.

Upon request by MDE, describe handscoring standards and how they will be verified.
Re-score affected papers if MDE or the Contractor finds questionable scorer reliability indication.

1.1.10 Security
The Contractor must maintain the highest level of security in order to safeguard the confidentiality of items, student information, and assessment results. The required security level is comparable to that required by financial institutions to prevent security breaches. The Contractor must comply with the following:
Security/Access Control:
All computer information systems and applications must operate in a secure manner and comply with Exhibit D (General Security Requirements). Contractor must uphold all of the requirements for handling, storage, and processing of all records and services provided under the Contract to ensure that no leakage or inappropriate disclosure of confidential or sensitive information occurs.
System ensures that the integrity and confidentiality of data is protected by safeguards to prevent release of information without proper consent. If the Contractor staff member accidentally or purposefully releases restricted (e.g., sensitive/confidential) data, the Contractor must assume full responsibility for any resulting penalties and processes required under the statutes. Contractor must report such instances as outlined in DTMB's Policy 1340.00.06 - Storage of Sensitive Information on Mobile Devices (Exhibit G)
System protects the privacy of student data according to FERPA regulations.
System provides secure unique identifiers for all users.
System checks each user's access privileges at login, and automatically disables or enables client functions (in real time) based upon the user's profile (Role-based security).
System provides federated identity management capability.
Security/Password Control:
All data transmissions/interfaces through Local area Network (LAN) or wireless connections, data at rest, and storage of data must meet DTMB's encryption standards as outlined in DTMB Technical Standard 1340.00.07 (Electronic Data Encryption, see Exhibit E) and DTMB Authoritative Policy 1340 (Information Technology Information Security, see Exhibit F). Per DTMB's Standard 1340.00.07, the State's requirements for encrypting transmitted data are:
a)   Centrally managed digital certificates by DTMB
b)   Approved data encryption (LAN or wireless connection) that meets DTMB Technical Standard
Message data integrity from source to host will be verified by making sure the message hasn't been modified since it left the storage source by adding an encrypted digest to the message, using either the MD5 or the SHA-1 algorithms.
System must allow users to enter passwords in only non-display fields.
System must encrypt passwords when they are routed over the network.
System must store passwords in an encrypted state.
System must provide a method of secure login for all users and comprehensive security for all system components.
System must support secure socket delivery such as SSL using industry standard encryption levels.
Telecommunication lines must comply with DTMB Network and Infrastructure Standard 1345.00 (see Exhibit H).
Data storage on equipment and portable media must meet DTMB Technical Standard 1340.00.06 (Storage of Sensitive Information on Mobile Devices and Portable Media, see Exhibit G).
Security/Activity Logging:
System must maintain an audit trail of all security maintenance performed by date, time, user ID, device, and location, with easy access to information.
Collection of Test Administration Security Compliance Agreements (Paper/Pencil):
All individuals with any access to secure materials must sign a Security Compliance Agreement developed by MDE. The Security Agreement must be maintained at districts/schools for one year and must be presented on demand to monitors, observers, or investigators.
Contractor must provide security agreements for all staff.
Assessment Monitoring and Investigations (Paper/Pencil)
MDE defines three types of monitoring and one type of investigation.
Critical Incident Special Security Monitoring: A Critical Incident is defined as a serious security breach in which

immediate monitoring is required. The Contractor must provide special security monitors at MDE's request. The Contractor should expect one critical incident per test cycle and the need to provide five monitors per day for six days duration.

The Contractor must:

Provide Special Security Monitors within 24 hours upon the request of MDE, to accompany MDE staff and assist in securing compliance at a specific school(s).

Prepare its Special Security Monitors at MDE's direction to do such things as deliver test materials to the assessment room, monitor test administration by school staff, and return test materials to a secure location.

Targeted Monitoring: Targeted Monitoring is defined as monitoring a specific school for reasons such as irregularities in previous testing administrations. Targeted Monitors are appointed by MDE, not the Contractor. The Contractor is responsible for Targeted Monitor reimbursement. The Contractor must:

Reimburse each Targeted Monitor at the rate of $250/day plus travel expenses.

Expect 40 targeted monitor visits per school year.

Random Monitoring: Random Monitoring is defined as monitoring a school picked at random by MDE. Random Monitors are appointed and reimbursed by the Contractor. The Contractor should expect 40 random monitor visits school year.

Targeted Investigation: A Targeted Investigation is defined as an investigation of a school based on specific documented or alleged irregularities in previous testing administrations. These investigations may occur prior to, during, or following a testing window. Targeted Investigators are appointed by MDE, not the Contractor. The Contractor is responsible for Targeted Investigator reimbursement.

To ensure the highest level of assessment security and integrity, and that the assessment system is working as expected. The Contractor must:

Reimburse each Targeted Investigator at the rate of $500/day plus travel expenses.

Expect each investigation to have two investigators with the investigation lasting two days. The Contractor should expect no more than 10 targeted investigations per school year.

Document Retention and Storage

The Contractor and MDE will define, during requirements gathering, identify/update retention requirements for electronic documents that includes the following.

MDE must have access to all stored documents and files at any point during the Contract term or within agreed-upon retention guidelines established during requirements gathering.

Electronic Files:

The Contractor must retain all student testing data in a highly secure location with off-site backup for the life of the Contract.

The Contractor must have full archives of student testing data that must be made available to MDE via an open published API.

The Contractor must not delete any student testing data without written permission from the MDE Project Manager.

1.1.11 Print Materials

The materials section of this document is to provide students with a standardized and efficient medium to record their responses to the test questions.

The Contractor must provide a daily inventory of materials on-hand to allow MDE to request print on demand of materials. The Contractor must also provide MDE access to the print facility to view facility and review security measures.

Scannable answer documents. MDE will provide standard design mock-ups and layout requirements for scannable answer documents for each assessment, grade and content area.

The Contractor must produce answer documents that contain fields for students and test administrators to bubble in supplemental information to be scanned and added to the scored file.

The Contractor must produce answer documents that provide an area for multiple choice and CR.

The Contractor must provide a final proof (both electronic and printer's proof) for MDE approval before printing.

The Contractor must be able to print on demand any additional and/or emergency materials required.

The Contractor must have the ability to provide pre-applied student identification information as well as print pre-id labels as specified.

These answer documents must be compatible with the specifications established by MDE during requirements gathering.

Final sign-off dates must be established in the MDE-approved project schedule(s).

Test booklets:

MDE will provide Press Optimized Files (POFs) of all test booklets for the Contractor. The Contractor must use POFs provided by MDE to create the Initial, Accommodated, and Emergency test booklets for those schools/students authorized for paper/pencil test administration.

The Contractor must then conduct an independent proofing of the POFs for all test booklets of all assessment programs content areas, grade levels, and forms including Initial, Accommodated, and Emergency Forms of the tests before providing the printer proofs to MDE for final approval.

The Contractor must provide a sample of each type of material for all print production copies to MDE immediately following the initial print run.

Accommodated Test Materials

The Contractor must produce all accommodated test materials (Refer to Section 1.1.7 – Paper-Pencil Accommodated Formats and Materials). The accommodated formats are unique to the content and grade level for each assessment program.

The Contractor must create an audio master from Reader Script/Booklet provided by MDE.

The Contractor must duplicate audio CDs that are included with accommodated materials (Refer to Section 1.1.7 – Paper-Pencil Accommodated Formats and Materials).

Ancillary and Supporting Test Materials

A test administration manual and a security compliance form are developed for use with all assessments. Test Administration Directions are produced for each assessment, content area, and grade level (if applicable). These items must be produced by the Contractor in conjunction with MDE.

Other supporting materials, such as Student Picture Cards (MI-Access), measuring tools, the Return Verification Form, Material Return Form and Special Handling envelopes, as well as all materials needed for securing, organizing and returning test materials for scoring, are developed by MDE and produced by the Contractor, with MDE approval.

Measuring tools, such as rulers required for one or more test items, are specified on test maps drawn from IBS and produced according to item specifications and stated quantities.

Online Administration Test Administration Manuals (TAM) and online test administration directions are developed by MDE, and/or its agents, and are produced/printed by the Contractor.

The Contractor must print, pack, and ship online test administration manuals and directions with the initial material orders.

Paper and Pencil Administration TAM

Paper and Pencil Test Administration: TAMs must be developed jointly by the Contractor and MDE and approved by MDE for Paper and Pencil Test Administration for the roles of District and Building Coordinators, and Test Administrators. Each manual must describe in detail all specific duties required for each role for a complete and successful test administration. Manuals should be produced in Microsoft Word© or a mutually agreeable format to enable editing between MDE and the Contractor.

Manuals for Paper and Pencil Testing must be prepared for posting as a PDF and a specified number must also be printed and shipped to all schools administering paper and pencil tests.

Each assessment will require role specific Test Administration Manuals for, District Assessment Coordinators, Building Test Coordinators, and Test Administrators. Test administration requirements and details must be described for before, during, and after testing as appropriate for each role.

Manuals must provide all details, including calendar and timelines, necessary for a successful online or paper administration and include sample documents such as answer documents if appropriate, security forms, and other documents required and necessary for test administration.

Test Directions to be shared with students as necessary for Test Administrators to facilitate paper and pencil test administration and must be developed for each assessment. These test directions may be separate from the TAM.

All manuals for paper and pencil tests must be provided to MDE for approval at least four weeks in advance of the anticipated release date. Manuals must be made available to Test Administrators no later than six weeks in advance of the specific assessment.

Supporting Materials for Test Administration
The Contractor must provide TAMs for all off the shelf assessments.

TAMs for Michigan developed and consortia base tests are developed by MDE and printed by the Contractor.

Other supporting materials, such as the Return Verification Form, Material Return and Special Handling envelopes, as well as all materials needed for securing, organizing and returning test materials for scoring, are developed by MDE and produced by the Contractor, with MDE approval.

POFs are produced by MDE Composition for Michigan developed and consortia based tests and are electronically transferred to the Contractor.
The Contractor must provide printer proofs to MDE for approval before printing.
The Contractor must utilize a spine coding system.
The Contractor must print both TAMs and Test Administration Directions using MDE-produced POFs according to the test cycle schedule. The Contractor must provide printer proofs for MDE approval before printing. The quantity of manuals will be determined by MDE and provide per the project schedule.
Material Return Envelopes: The Contractor must provide a means for materials that require special handling to be returned to the Contractor.
Materials Return: The Contractor must produce and provide all materials/resources needed for securing, organizing, and returning test materials for scoring.
QAP or Print Materials
Examples of produced materials may include test booklets, answer documents, TAMs, Reader Scripts, Enlarged Print test booklets, Braille test booklets, Audio CDs, Classroom Activities, Glossaries and Braille Notes.
The QAP must include procedures for oversight of print accuracy, quality, and security related to all Michigan assessment materials and processes. This includes selection of paper of sufficient weight and opacity to prevent print "bleed-through" from the reverse side of a student test booklet that could interfere with a student's test administration.
The Contractor must apply security barcodes and shrink-wrap in MDE designated package counts.
The QAP will be reviewed and updated during the life of this Contract and approved by MDE.
Packaging and Distribution
The MDE Secure Site produces lists of assessment materials and quantities for each assessment program that are made available to the Contractor via a web service or direct table read.
Ordering Materials
Schools approved for paper-pencil administration will order testing materials through the MDE Secure Site, where various rules will be applied to the order quantities, including overage calculations. MDE will provide data for ordering to the Contractor for use in packaging and addressing material shipments.
The pre-ID for spring testing will be used to determine initial orders of paper-and-pencil testing materials for spring assessments.
Pulling Orders
Accommodated forms and materials.
Accommodated forms and quantities are specified in order information.
Accommodations are specified by student, as part of the pre-identification data.
Packaging of Materials
The Contractor must package materials by school/district using quantity information from the MDE Secure Site.
The Contractor must sort answer documents by grade, subject area, class/group code, and student last/first name, and ship-to districts or schools.
The Contractor must print and provide Pre-Identification Labels for those students identified on the MDE Secure Site after the mutually agreed-upon date for pre-identification of answer documents but before answer documents are packaged.
The Contractor must also provide blank sheets of labels in the shipment for use by schools for testing students who were not pre-identified by the Contractor. The number of blank sheets to provide will be determined during requirements gathering.

Accommodated Material Kits

The Contractor must assemble accommodated material kits by type of accommodated material ordered and must ship kits to the schools.

The Contractor must create accommodated test kits to include the requested accommodated formats in addition to the accommodated test materials. All kits must include a printed copy of the accommodated test form, the regular form 1, an answer document, the appropriate test administration manual and a cover sheet/packing list.

Order of Packing

The Contractor must accept special requests for shipment through MDE or their call center.

The Contractor must ensure materials are packaged by school and are shipped to school or district as indicated in the secure site.

The Contractor must ship forms to school/district based on the paper/pencil sampling/distribution plan.

Distribution of Test Materials – The Contractor must ship test materials to arrive in districts/schools by MDE-specified dates.

The Contractor must ship the following test materials:

Initial non-secure standard test material orders.

Initial secure standard test material orders.

Initial accommodated test material orders.

Additional non-secure standard test material orders.

Additional secure standard test material orders.

Additional accommodated test material orders.

The Contractor must ship Emergency test materials to arrive in schools/districts by MDE-specified dates.

Receiving and Check-In Process for Scorable and Non-Scorable Documents and Material – Print:

The Contractor must provide schools/districts with scorable/non-scorable labels for material returns.

The Contractor must provide schools/districts return shipping labels assigned for use and tracking by the Contractor.

The Contractor must pay all return shipping charges.

The Contractor must make all shipping arrangements for material return.

The Contractor must allow for packaging of multiple assessments for a single pickup.

The Contractor must establish a process for the late return of documents, collecting late return fees from schools/districts for all assessments.

The Contractor must explain the late return shipping services available and the cost charged to the school/district for each service.

The Contractor must publish late return fees for all assessments.

The Contractor must be available to prepare and participate in webcasts associated with the return of material procedure.

Schools must be able to track materials shipments for delivery and return. The Contractor must provide MDE with tracking data during and following the shipping window.

The Contractor must scan returned boxes as they are received in a secure area and notify shipper, school/district and MDE of any missing materials.

The Contractor must open all boxes and determine accuracy of the document counts provided by the schools. If the Contractor elects to separate boxes of scorable materials from non-scorable, the scorable must be sent for scanning; non-scorable materials must be initially checked to see if they contain scorables; and all non-scorables having security barcodes must be scanned for check-in.

Receipt of Printed Material (Print) – the Contractor must receive and check in test materials as shipments arrive from the districts and schools.

Missing Bar Codes

The Contractor must provide a listing of schools and number of students with missing bar codes.

The Contractor must establish the fees schools will be charged for missing bar codes and the late return of materials.

The Contractor must notify schools of the number of answer documents missing bar codes and the associated fees.

Missing Materials and QAP

The Contractor must notify schools of all missing materials within three weeks of completion of scanning.

The Contractor must provide schools with instructions for the return of all missing materials by a specified date. Schools that do not respond by the date established by MDE must receive a second notification.
The Contractor must provide a report of missing materials, after each response deadline has passed, to MDE.
The Contractor must provide MDE by a specified date with a final list of schools and missing materials still outstanding after the second notification.
Administration and Irregularity Form Review
The Contractor must open and review forms returned in the Administration and/or Irregularity Forms envelopes.
The Contractor must provide MDE a summary of all irregularities reported.

1.1.12 Reporting

Reporting consists of the capture of information and presentation of test related information. Preliminary Reporting occurs soon after the test, depending on detailed requirements and as approved by MDE. Longer-term summary Reporting occurs approximately one month to six weeks after the test. This is dependent on requirements, as approved by MDE. Reporting must include both online presentation as well as printed reports.
Requirements Gathering
The Contractor must conduct requirements gathering sessions with MDE staff to determine and understand the specific content and format of the reports to be provided.
Requirements must be reviewed and revised as needed for each assessment cycle.
UAT
The Contractor must provide for a reporting UAT that includes:
Mock Reporting - Verification of all reporting processes and results, both paper and online, using mock test data sets provided by MDE via direct table read for each assessment program, subject, and grade level.
Production Reporting UAT
Verification of Paper and Online Reports by MDE before they are made available to the schools and districts.
Ongoing monitoring and validation of real-time online reporting by MDE, using the test session data files.
Production QA
The Contractor must monitor their real time reporting data for accuracy and timeliness of availability on an on-going basis throughout the test window and reporting period.
The Contractor must provide updated documentation of their validation process and procedure, including frequency and volume, for MDE's review and approval.
The Contractor must provide MDE with evidence of continued monitoring during MDE testing windows and reporting periods by providing reports on demand of the monitoring results.
The Contractor must immediately notify MDE of any reporting issues, either with timeliness, accuracy, or availability.
The Contractor must provide MDE with a plan and timeline for issue resolution in the event of a reporting issue.
Reporting
The Contractor must provide results for all testers, both online and paper-pencil, as follows:
The Contractor must generate the reports below for summative assessments only, on paper to be delivered to schools and districts and must also make them available as online static reports.
Parent Report.
Student Labels.
Online dynamic report templates that pull data real-time, with the capability for schools and districts to print:
Individual Student Reports.
Report by Class or Group Code – available in the Secure Site.
Aggregate reporting that can be filtered by school, district, ISD, or State of Michigan.
Online custom data access - Capability for a user to access the report data based on their user role and permissions, select the data fields they would like to view, and filter the data to identify individual students that fit the filtered criteria.
The Contractor must provide rolling reporting of assessment results online.
Preliminary reporting, available for online testing only, will be further defined during requirements gathering. It must include, but is not limited to, the following:
Raw score results for all machine scored operational items.

Be available within a time period defined in the requirements definition and as approved by MDE.
Prominently display the disclaimer that the results are raw score data and have not been verified by MDE.
Be available to authorized school, district, ISD, and State users via the Secure Site login authentication process.
Update to include constructed response scoring for operational items as the score data becomes available.
Summary reporting – online, available for all testers.
Pull MDE verified data results from MDE Secure Site during an initial pull.
Pull data updates from MDE Secure Site on a schedule to be determined during requirements gathering.
Build upon the preliminary reporting.
Remove the unverified disclaimer once the data has been verified by MDE.
Update to include scale score and performance levels as the data becomes available.
Provide both online dynamic report templates and access to verified data to support custom data filters.
Summative Assessment Reporting
The Contractor must generate all reports for Summative assessments.
The results must be for a specific test cycle and must include SGP data. Derivation of the SGP is under a separate contract and is not within scope of this Contract.
The SGP data to be reported must be obtained from the MDE Secure Site via direct table read.
Interim Assessment Reporting (optional at MDE's discretion)
The Contractor must generate all online reports for the Interim assessments.
The Contractor must generate Interim Report data after each test administration, pre, mid, and post.
The Contractor must include data from that school year (grades K-8) or course based (for High School).
The pre-test results must include data from that test administration only.
The mid-test results must include data for both the pre and mid test administrations.
The post-test results must include data from all administrations for the school year or cycle.

1.1.13 Technical Report

MDE requires the annual production of a technical report that documents the development and psychometric characteristics for each of the Michigan assessments. Those reports must be comprehensive, providing reviewers with all the information necessary to evaluate the technical merits of the Michigan assessments and clearly written so that the report is readily accessible to reviewers at the U.S. Department of Education, other oversight bodies, and Michigan stakeholders.

Following each test administration cycle, MDE creates an operational technical report for each assessment program documenting all phases of the test development, scoring, and reporting process and providing evidence for the reliability and validity of the assessments, as well as providing all of the supporting analysis results as appendices. The development of these technical reports provides validation of the assessment's reliability and validity as is required by NCLB. Additionally, the State strives to ensure that all documentation complies with requirements set forth in Chapter 7 of The Standards for Educational and Psychological Testing (AERA/APA/NCME, 2014).

While the vast majority of technical analyses and psychometric processes will reside within the MDE, most of the processes employed to develop, administer and score the assessments are the result of collaborative efforts between all Contractors and the MDE. The proper documentation of all processes serves as crucial validation evidence to support the purpose of the assessment program as well as the inferences made from the assessment scores. Therefore, the Contractor must schedule and document needs analysis and requirements gathering sessions around the specific documentation and other information they must provide to the MDE Psychometric Lead(s) to allow for timely and accurate release of the Technical Reports.

The following section is a high-level list of sections of the technical report and relevant features the Contractor will be responsible for providing. The list should not be considered exhaustive; as alluded to previously, there will be specific requirements gathering conducted to determine in greater detail the technical report responsibilities for each Contractor and the MDE.

For items developed by MDE, the Contractor must contribute to <u>at least</u> the following technical report sections that will be authored collaboratively between MDE Psychometric, Development and Administration staff and the Contractor:

Test Administration

Provide documentation of the process used to ensure tests were delivered as expected.

Addresses how the MDE approved sampling plan for form distribution was carried out.

Test security

Full documentation of the procedures employed by the Contractor to ensure security of test items.

Exposure control

Proctoring/monitoring

Secure browsers/LCS/data storage and security

Secure and unique log-ins

Student stopping and continuation rules

Full documentation of procedures employed to analyze assessment data for possible irregularities post-assessment.

Answer changing behavior

Proximity analysis

Telemetry data

Time stamping

Unusual response strings

Item parameter drift

Technical documentation regarding security of the actual electronic data including the items, the student responses and personally identifiable information.

Where does the data reside?

Who has access to the data?

What security precautions are employed to ensure the data is secure and not vulnerable to breach?

Thorough explanation of test session data collected and provided to MDE for audit purposes. This documentation should be sufficient enough to allow authorized personnel the ability to recreate a student assessment experience item by item when combined with the telemetry data.

Test Scoring and Reporting

Provide documentation of the process used to link student response data to scoring tables for score reporting (fixed form only).

Provide full description of all scoring algorithms and constraints used to convert student response strings to student ability estimates and subsequent transformation to the reporting metric (adaptive).

Provide documentation of quality control processes used to ensure student scoring algorithms are applied without error. One example is the parameter recovery studies prescribed by MDE.

1.1.14 Reserved

1.1.15 Psychometric Services

Currently, the MDE Psychometric and Measurement Research unit performs all psychometric tasks related to the assessments in scope for this Contract. This includes all item analyses, scaling, and equating as well as serving as subject matter experts for data reviews, accountability modeling/analysis and other areas of consultation. The results are currently verified by an independent party with that serving as a quality assurance process. To date, MDE has seen faster processing of student results, scoring and reporting since making this switch. However, in the event that MDE determines that the current psychometric staff is unable to perform the necessary psychometric analyses within the schedule, for whatever reason, additional psychometric services may be required to fulfill MDE psychometric responsibilities

These services may be provided by either the Contractor or a subcontractor (as long as the subcontractor is not already identified to perform the Independent Psychometric Review).

Pricing is based on Program, Content and Grade (P/C/G) and includes provisions for independent verification. It should be noted, that should this line item be exercised, the work will be performed under the ultimate supervision of the MDE Psychometric lead with final approval resting in that authority or supervisors of that authority (e.g. OESRA Director, Deputy Superintendent).

For Pre-Assessment Psychometric Duties, the Contractor must:

Work with Test Development content leads to review blueprint and item needs.

Consult on number of items, field test slots, equating/anchor item selection, placement of linking items, etc.

Provide sign off on proposed test forms based on psychometric properties and content balance.

Note: each test form requires dual sign-off from both the content lead and psychometric lead assigned to the program. This is often an iterative process.

For fixed form assessments, pre-equated raw to scale score tables need to be developed by the Contractor and must be verified by independent psychometric firm prior to test administration.

Develop sampling/form distribution plans

Ensures forms and field test items are distributed in a way consistent with state demographics. The goal is to help support generalizability arguments and assert some degree of trust in the calibrations of the field test items.

For Duties Performed During the Assessment Window, the Contractor must:

Produce early return data key check/item analysis; the purpose is to determine if there are possibly miskeyed items and if there are corrections to data, scoring processes or both needed. These usually are completed in no more than three days for a given content area (all grades/all forms). Indices produced include, but are not limited to:

P-values

Corrected Item-Total Correlations for keyed and non-keyed responses

Percentage of students choosing each response option

Any potentially anomalous results are immediately reviewed with the relevant content leads. Legitimate miskeys need to be quickly reported to the scoring contractor in order to have a timely correction to the data file prior to the release of scores.

Response data must be clean and accurate when final calibrations and analyses are conducted so this early check is a critical QC process.

Provide item calibration services: depending on the program and reporting needs there are situations that require the psychometric team to pull scoring data prior to the close of the window for the purpose of calibration and generation of raw to scale score tables (for fixed form, non-pattern scoring approaches).

If this approach is taken, equating must accompany the scaling. MDE currently uses mean/mean and Stocking-Lord approaches for equating depending on the measurement model implemented. More appropriate procedures might be needed depending on the model and test specifications.

There are typically rather involved statistical analyses and techniques used to try to ensure a population representative sample is used for these critical functions. Contractor method for this determination will be subject to MDE approval.

Contractor will be responsible for any comparability studies geared at determining if there are mode effects (differences between paper/pencil and online item parameters) that should be handled with unique or the same scoring tables/approaches. This too will be subject to independent verification. As this is a policy decision, final determination will lie with MDE as to whether or not the State will treat modes as comparable.

For Post Assessment Analyses, the Contractor must:

Support the MDE Psychometric team as: Following each assessment, the MDE Psychometric team performs the scaling and equating of all operational forms. This generally occurs over a 10 day period (or less) including time for independent verification.

As mentioned in the previous section. Comparability studies are also to be conducted when multiple modes are being used to administer the assessment.

Support the MDE Psychometric team as follows: Each item, operational and field test, will be subject to 712 unique item analyses that are performed along with the scaling and equating. The data from these metrics is to be uploaded to the Michigan Item Bank within 20 days of the assessment window closing. This amount of time is typically sufficient for hand scoring to occur and also affords the test development unit adequate time to schedule data review meetings with Michigan educators.

Psychometric leads are imperative for the success of the data review meetings as they provide all of the relevant data and take the lead in giving the data interpretation presentation to the review panelists.

Produce the Technical Report. An example of this report can be found here:
http://www.michigan.gov/documents/mde/MEAP_2012-2013_Technical_Report_451838_7.pdf which is to be
completed in 45 days following the close of the assessment window.

1.1.16 Reserved

1.2 Training of District and Building Level Coordinators and All Test Administrators

The Contractor must work closely with MDE to develop standardized training presentations for Michigan
Interim and Summative assessment programs (Grades K-12) for paper and pencil test administrations.
Training materials must provide both a general overview, and role specific details necessary to facilitate a
successful test administration for the positions of District and Building Test Coordinators, and Test
Administrators including Proctors as outlined in the Test Administration Manuals.
Video Presentation
The Contractor must develop and produce video presentations, webcasts and/or webinars for paper and pencil
test administration training to provide:
Presentation trainings must include a video overview that describes general information about each
assessment for District and Building Test Coordinators, and Test Administrators and Proctors.
Presentation to also include video training for the specific roles of District and Building Test Coordinator, and
Test Administrator and Proctor.
Webinar Production
Contractor must provide training videos or webinars to be recorded for future viewing and subsequent
workshops with Michigan Assessment Coordinators and Test Administrators.
Presentation Modes
All video content and presentation modes must be pre-approved by MDE no less than six weeks in advance of
each assessment.
Video Training
The Contractor must provide supporting training materials for testing personnel approved by MDE such as (not
all inclusive) answer documents, header sheets, security forms, and test administration manuals for inclusion
in training packets as necessary and requested by MDE.
Video Presentations for District Coordinators
The Contractor must create video presentations for training to be used to provide District Coordinators a
general overview of each assessment for paper/pencil.
The Contractor must create video presentations to be used to provide training to District Coordinators for job
specific tasks for paper/pencil administrations.
The Contractor must describe the process required for District Coordinators to access video training.
The Contractor must host video trainings for District Coordinators or provide the training in a format approved
by MDE.
Video Presentations for Building Test Coordinators
The Contractor must provide a general overview of each assessment to Building Test Coordinators for
paper/pencil administrations.
The Contractor must provide job specific training to Building Test Coordinators for each assessment for
paper/pencil administrations.
The Contractor must define the process required for Building Test Coordinators to access training.
The Contractor must host video trainings for Building Test Coordinators or provide the training in a format
approved by MDE.
Video Presentations for Test Administrators
The Contractor must provide Test Administrators (including Proctors) training with a general overview of each
assessment for paper/pencil.
The Contractor must provide Test Administrators (including Proctors) with job specific training for paper/pencil.
The Contractor must define the process required for Test Administrators (including Proctors) to access training.
The Contractor must host video trainings for Test Administrators (including Proctors) or provide the training in a
format approved by MDE.
Webcasts
The Contractor must produce (and record) live webinars or webcasts to train District and Building Test

Coordinators, Test Administrators and Proctors in their role specific tasks for planning and administering each Michigan paper and pencil assessment.

Initial training webinars must be recorded for future viewing and subsequent workshops with Michigan Assessment Coordinators and Test Administrators.

All content and presentation modes must be pre-approved by MDE no less than eight weeks in advance of anticipated release and presentations will be ready for use no less than six weeks in advance of each assessment.

The Contractor must provide training materials for inclusion in training packets, including test administration manuals and other examples of test administration documents as necessary and requested by MDE.

All training materials remain the exclusive property of MDE and must be created in a format that can be edited by MDE.

Quick Start Guides:

Quick Start Guides or Checklists must be produced by the Contractor for the roles of District Assessment Coordinators, Building Assessment Coordinator, and Test Administrator for Paper/Pencil Testing.

Quick Start Checklists must be produced by the Contractor for the roles of District Assessment Coordinators, Building Assessment Coordinator, and Test Administrator for Paper and Pencil Testing.

The Quick Start Checklist for each role must be no longer than two pages. Quick Start Guides should be produced in Microsoft Word© or a mutually agreeable format to enable editing between MDE and the Contractor.

The Contractor must ensure the Quick Start Checklist will be available for use in the initial training webinars and must be provided to MDE for approval two weeks in advance of the first training event.

1.3   Program Development/Assistance

There are many stakeholders involved with various facets of implementing programs described within this Contract. At times, there are requests for research, training or special reporting related to federal or State mandates. Together with its contractors, MDE expects to be able to handle most of these requests.

In addition, staff may need to attend specific training sessions to maintain their expertise in the programs identified in this Statement of Work. Staff may also be required to provide training to large groups of stakeholders regarding one or more of the administration and reporting activities.

Upon written approval of the MDE Director, the Contractor must contract with and compensate individuals and organizations selected by the MDE Director to cover the aforementioned needs within this section. Line items are included in the price sheet related to this section.

2.0   Acceptance

2.1   Acceptance, Inspection, and Testing

The State will use the following criteria to determine acceptance of the Contract Activities:

The Contractor must submit all deliverables to the MDE Project Manager and the MDE Authorized Approver(s). These individuals will be identified in a document created by MDE.

The MDE PM and Authorize Approvers will provide approval as is or submit in writing (email or other agreed to format) things to be changed.

The Contractor must update and resubmit. This is repeated, as necessary, until the deliverable is correct and approved.

3.0 Staffing

3.1   Contractor Representative

The Contractor must appoint two individuals (a primary and backup) specifically assigned to State of Michigan accounts, that will respond to State inquiries regarding the Contract activities, answering questions related to ordering and delivery, etc. (the "Contractor Representative").

Prime Contractor Representative	Backup Contractor Representative
Henry H. Scherich, Ph.D., President	Alex Avila, Vice President, Finance
Measurement Incorporated	Measurement Incorporated
423 Morris Street	423 Morris Street
Durham, SC 27701	Durham, NC
(919) 683-2413 ext. 1135	(919) 683-2413 ext 1134
hsherich@measinc.com	aavila@measinc.com

Technical questions can also be answered by Chris, McCown, MI's Program Manager at (919) 683-2413 or cmccown@measinc.com

The Contractor must notify the Contract Administrator at least 10 business days before removing or assigning a new Contractor Representative.

3.2   Reserved

3.3   Technical Support/Call Center

The Contractor is responsible for providing Call Center services to handle phone calls and emails regarding the Michigan assessments, described in the scope section, except those regarding the eDirect, Insight, and Test Site Manager (TSM) components of Michigan's online assessment system. The toll-free phone number for the field is provided by MDE, which routes calls to the appropriate Call Center number provided by the contractor. The Contractor is responsible for hosting a Call Center for the duration of the Contract.

The Call Center(s) must be staffed by persons dedicated to Call Center responsibilities and knowledgeable about each assessment program, including materials, processes, and use of Michigan's Secure Site for functions related to student data, assessment administration, and school accountability and reporting.

The Contractor must provide a final support plan, for MDE's review and approval, which documents how calls will be answered, how to respond to questions they cannot answer, and an organizational chart identifying all staff and roles within the Call Center team.

Calls must be answered with "Michigan Call Center" followed by the agent's name.

Training will be provided to the Call Center agents by MDE staff and/or Michigan's subcontractor(s), as determined by MDE.

The Call Center(s) must provide the following support:

Call Center agents must respond to routine questions regarding the Secure Site and assessment administration from MDE approved answers.

Highly technical, new or unique questions that cannot be immediately answered must be forwarded to a designated Contractor or MDE staff member for response.

Repetitive questions should be submitted to MDE contact for an answer to be added to the approved answers.

The Call Center agents have the ability to interface with the Educational Entity Master (EEM) at www.michigan.gov/eem to obtain assessment coordinator and school information when needed.

Contractor staff must be available from 8 a.m. to 5 p.m. EDT/EST on Monday through Friday (excluding State holidays, but including summer vacation days) throughout the entire duration of the Contract to ensure consistent availability to the field. A listing of State holidays can be found at http://www.michigan.gov/som/0,1607,7-192-29938-90605--,00.html

During online and paper and pencil test administrations, Contractor staffing must be available beginning at 7 a.m. EDT/EST to ensure a timely response to callers prior to an assessment. The Assessment Coordinators will use the Call Center number to ask questions.

The Contractor staffing of this Call Center can be variable, but must be staffed at adequate levels, subject to the following:

Callers must not be put on hold for long periods (four minute maximum).

Transferring the caller to voicemail does not satisfy the four minute maximum.

Callers must be given an option to leave a voicemail in place of being put on hold.

Voicemails must be returned within three business hours.

Callers should not receive a busy signal at any time.

Based on an average estimate of 600 calls per month, with a peak of approximately 6,000 per month during assessment administration, the Contractor must:

Provide Call Center software to log call details including the caller name, district and school name, date and time of the call, nature of the call, Call Center agents name and the response that was given to the caller. All software used in the Call Center for the purpose of answering questions, logging calls, monitoring calls, etc. should be documented and provided to MDE.

Provide to MDE a written procedure for call monitoring and escalation.

Provide to MDE a written procedure for ensuring consistent responses to the same issues.

Agents must only give out information that has been previously provided by MDE. MDE may provide this information via manuals, emails, the Call Center's knowledge base or through other communications from MDE.

For questions that do not have an answer in writing, the Call Center manager must contact MDE (currently Tina Foote). The answer provided must then be documented in the Call Center knowledge base for future use.

Provide a written emergency plan for approval by MDE to ensure that calls from the field do not go unanswered during an outage or other emergency situation.

The Contractor must provide the following reports as part of the quality assurance plan to ensure that quality customer service is being provided to the field.

Provide Call Center Detail Reports on a monthly basis and weekly during assessment administration, providing:

Summary of call issues.

Details of each call may be requested of the Contractor by MDE to investigate or used to determine problems in the field that can be resolved through additional communications or other means.

The Contractor must provide weekly Call Center reports including:

Volume of calls by day and hour.

Average time on hold by day and hour.

Minimum and maximum hold time by day and hour.

Number of dropped calls by day and hour.

Average time calls on hold before calls were dropped by day and hour.

Response time calculations must not count transferring the caller to voicemail as a response.

Additional information may also be required of the Contractor for the monthly Call Center report upon request of the Contract Compliance Inspector (CCI) based upon experience with the performance of the Call Center and/or unanticipated types or volumes of support calls.

Contractor will provide MDE with all approved responses that are being used by the Call Center agents prior to a new test cycle and also upon request, so that MDE can monitor changes that may need to be made to responses and situations.

3.4   Work Hours

The Contractor must provide Contract Activities during the State's normal working hours Monday – Friday 7:00 a.m. to 5:00 p.m. EST, and possible night and weekend hours depending on the requirements of the project. This allows, as necessary for the personnel to interact most effectively without delays caused by schedules that do not largely coincide.

3.5   Key Personnel

The Contractor's specific individuals to fulfill key roles of the Contract ("**Key Personnel**") are listed below. These Key Personnel are specifically assigned to the State account, and are knowledgeable on the contractual requirements.

Day-to-Day Project Manager
IT Lead
Psychometric Lead
Call Center Manager

For the positions named above, the Contractor's staff is:
1. Program Manager: Chris McCown
Assistant Program Managers
Frances Barnes
Charles Rhine
Project Managers
Ramona Moore, Project Manager, General Assessments
Matthew Bussey, Project Manager, Alternate Assessments
2. IT Lead: James Henning
3. Psychometric Lead: Arianto Wibowo, Ph.D.
4. Call Center Manager: Rebecca McAdams

The State has the right to recommend and approve in writing the initial assignment, as well as any proposed reassignment or replacement, of any Key Personnel. Before assigning an individual to any Key Personnel position, Contractor will notify the State of the proposed assignment, introduce the individual to the State's Project Manager, and provide the State with a resume and any other information about the individual reasonably requested by the State. The State reserves the right to interview the individual before granting written approval. In the event the State finds a proposed individual unacceptable, the State will provide a written explanation including reasonable detail outlining the reasons for the rejection. The State may require a 30-calendar day training period for replacement personnel.

Contractor will not remove any Key Personnel from their assigned roles on this Contract without the prior written consent of the State. The Contractor's removal of Key Personnel without the prior written consent of the State is an unauthorized removal ("**Unauthorized Removal**"). An Unauthorized Removal does not include replacing Key Personnel for reasons beyond the reasonable control of Contractor, including illness, disability, leave of absence, personal emergency circumstances, resignation, or for cause termination of the Key Personnel's employment. Any Unauthorized Removal may be considered by the State to be a material breach of this Contract, in respect of which the State may elect to terminate this Contract for cause under Termination for Cause in the Standard Terms.

The Contractor must identify the Key Personnel, indicate where they will be physically located, describe the functions they will perform, and provide current chronological résumés.

3.6 Organizational Chart
The Contractor must provide an overall organizational chart that details staff members, by name and title, as well as role in the project. This chart must also include all subcontractors. The chart must reflect the percent effort values for each staff member proposed as necessary to fulfill the tasks and activities as presented in this document.

3.6. Organizational Charts
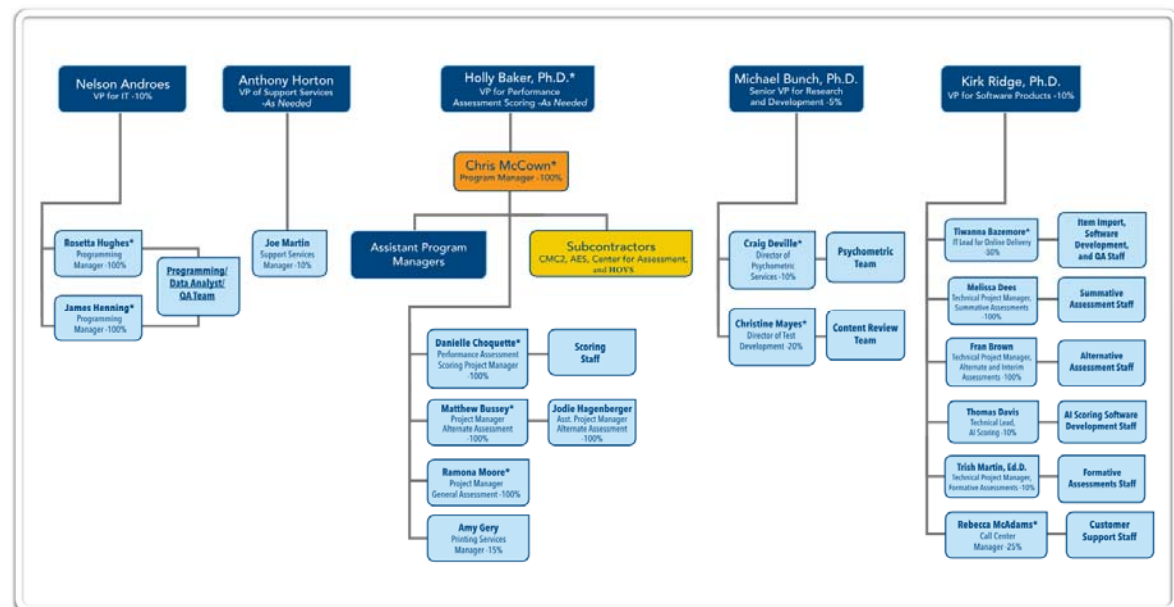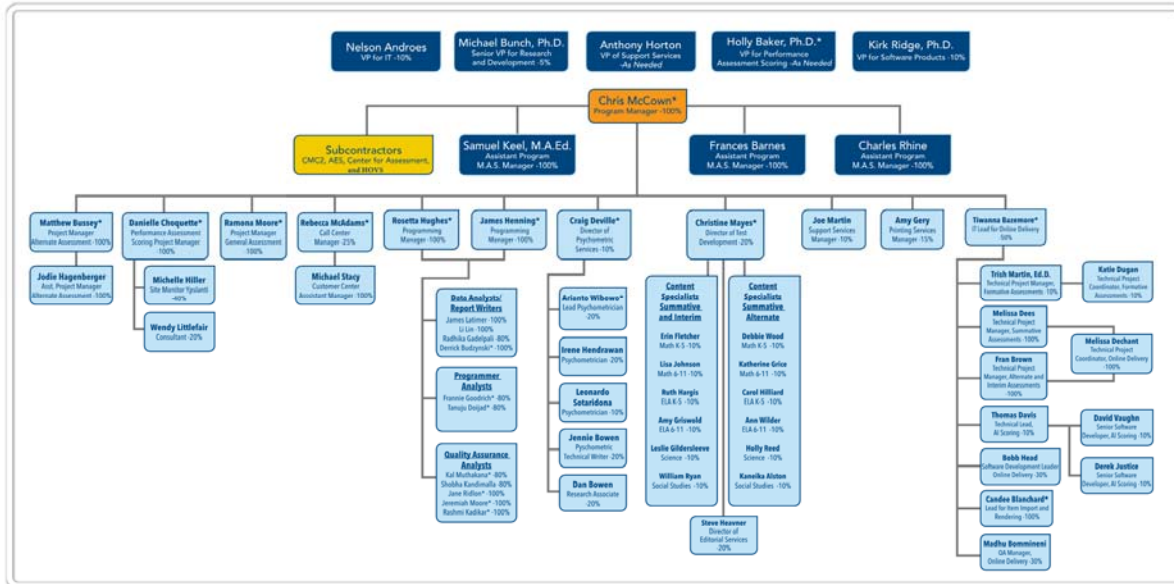
3.7   Disclosure of Subcontractors
If the Contractor intends to utilize subcontractors, the Contractor must disclose the following:
The legal business name; address; telephone number; a description of subcontractor's organization and the services it will provide; and information concerning subcontractor's ability to provide the Contract Activities.

Legal Business Name: *Cheeney Media Concepts, Inc.*
Address: Cheeney Media Concepts, Inc.
        3496 E. Lake Lansing Rd. Suite 100
        East Lansing, Michigan   48823

Telephone Number: 517-337-2622
Fax Number: 517-337-2870

Ed Cheeney, CEO
cheeney@cmc2.tv
Telephone Number: 517-337-2622
Mobile Phone: 517-881-7003
Fax Number: 517-337-2870

Cheeney Media Concepts Inc. (CMC²) is a design agency and development company based in East Lansing, Michigan.

CAPABILITIES:
CMC² has expertise in all aspects of media production, project development, and creative process.

COMPANY BACKGROUND – EDUCATION ASSESSMENT FOCUS
Cheeney Media Concepts, Inc. was incorporated in 2003 in the state of Michigan.

Legal Business Name: *Assessment and Evaluation Services*
Address:
29743 High Eschelon
Fair Oaks Ranch, TX 78015

Telephone Number: 830-755-4820

Capabilities:
Assessment and Evaluation Services (AES) is a Texas and Ohio based company which specializes in the development, implementation, and evaluation of assessments. AES works with state education agencies, test publishers, and local school districts.

AES-Independent Psychometric Quality Assurance Review Qualifications
AES has experience in performing quality control services in testing programs in Michigan, Ohio, New Jersey, New York, Virginia and Washington. In those states AES verifies similar psychometric analyses as described in the Michigan program.

Legal Business Name: *SOURCE HOV*

Name:	SourceHOV (HOV Services)
Address:	38120 Amrhein Road
City, State, Zip:	Livonia, MI 48150
Phone:	734.632.1600
Web Page:	www.sourcehov.com
Legal Status:	LLC
Business Structure:	Private
How long in business:	27 years
Sales volumes by year for each of the last five (5) years:	In May of 2011, HOV Services LLC (HOVS) and SOURCECORP, Incorporated (SOURCECORP) merged into one combined entity, SourceHOV LLC. We have provided consolidated information for SourceHOV below, as available; we have provided separate company information for years where combined information has not been calculated.

2011	2010	2009	2008	2007
SourceHOV's combined revenues for the year ended December 31, 2011 were $451.7M	SourceHOV's combined revenues for the year ended December 31, 2010 were $322.4M	SourceHOV's combined revenues for the year ended December 31, 2009 were $336M	SOURCECORP's revenues for the year ended December 31, 2008 were $355.8M HOVS' Standalone income for the year ended March 31, 2008 were $62.57M	SOURCECORP's revenues for the year ended December 31, 2007 were $372.6M HOVS' Standalone income for the year ended March 31, 2008 were $75.89M

Describe the work which will be performed by this subcontractor:	Project management and coordination; Report analysis, design, development; data processing and data composition; automated sort and assembly; automated workflow; print, packaging and distribution; distribution tracking and reconciliation; quality processing and SLA reconciliation; web hosting (ingestion and storage) and retrieval of reports; PDF generation
Describe the subcontractor's prior experience in providing these services:	SourceHOV has proudly served Measurement Inc and the State of Michigan Assessment Programs Administration with the processing, print, distribution and web hosting of MEAP reports since 2005. During this tenure, SourceHOV has provided automated assembly of state, school and district reports since our initiation in 2005. SourceHOV was also instrumental in assisting the State of MI DMB to attain a method – SourceHOV's Document DNA™ to satisfy the State's green initiative. SourceHOV works with Measurement Inc to take report data and map it to the report specifications from the State. In 2008, SourceHOV displayed our flexibility with the change of paper product of parent reports from 8.5x11 to 11x17 at which time, we successfully matched parent reports to their school related reports manually. SourceHOV takes great pride in our partnership with the State and Measurement Inc.

The relationship of the subcontractor to the Contractor:
AES is not affiliated with Measurement Incorporated. As a subcontractor, AES will perform psychometric quality assurance reviews and psychometric services on this contract.

Cheeney Media Concepts, Inc., a Michigan-based subcontractor not affiliated with Measurement Incorporated, will provide media products and services on this Contract.

Source HOV will be providing print services on this Contract. Source HOV is not affiliated with Measurement Incorporated.

Measurement Incorporated has worked extensively with all of the subcontractors on various U.S. assessments projects and have worked with HOVS and AES on previous Michigan contracts.

The Contract Activities that will be performed or provided by the subcontractors:

AES will perform Alternative Assessment services
CMC2 will provide media services on this contract.
HOVS will perform materials printing services on this contract.

4.0 Project Management

The State of Michigan's Project Management Methodology (PMM) is consistent with Information Technology (IT) industry standard best practices and relies on the Project Management Book of Knowledge (PMBOK). The PMBOK is authored and updated by the Project Management Institute (PMI).

4.1 Project Plan

The Preliminary Project Plan, including the Project Schedule, is a "first pass" of the recommended plan, including schedule, for this effort based upon Scope and Requirements.

Alignment with these standards defines components of a well-organized project. The plan sets the framework for project management.
The Preliminary Project Plan includes the following:
MS Project Schedule, which includes, but is not limited to:
Internal milestones
All tasks necessary to complete the work and deliverables described in Exhibit A, Statement of Work
Task durations for all tasks
Task dependencies that illustrate the relationship of various tasks and deliverables
Deliverable target dates and critical paths
Include tasks and associated durations for the State's review of project deliverables
Identification of roles likely to participate in the tasks and deliverables
Project approach / Statement of Work
Statement describing the project objectives
Scope Statement with a description of the expected deliverables
Assumptions and exclusions
Critical success factors
Initial communication plan
Anticipated hardware, materials, and supplies to be provided by the State in meeting the target dates identified in the Preliminary Project Plan

Project Control
The Contractor must carry out this project under the direction and control of MDE.
Within 10 business days of the start of the Contract, the Contractor must submit an updated project plan to the MDE Project Manager(s) for final approval.
The Contractor's project organizational structure.
The Contractor's staffing table with names and titles of personnel assigned to the project. This must be in agreement with staffing of accepted proposal. Necessary substitutions due to change of employment status and other unforeseen circumstances may only be made with prior approval of the State.
The project work breakdown structure (WBS) showing sub-projects, activities and tasks, and resources required and allocated to each.
Contractor must manage the project in accordance with this Contract.
Contractor must use an automated tool for planning, monitoring, and tracking the Contract's progress and the level of effort of any Contractor or their subcontractor personnel spent performing Services under the Contract. The tool must have the capability to produce:
Staffing tables with names of personnel assigned to Contract tasks.
Project schedule showing tasks, subtasks, deliverables, and the resources required and allocated to each (including detailed plans for all Services to be performed within the next 120 calendar days, updated weekly or biweekly as directed by the State PM).
Updates must include actual time spent on each task and a revised estimate to complete.
Graphs showing critical events, dependencies and decision points during the course of the Contract.

Project Issues Management
An issue is an identified event that if not addressed, may affect schedule, scope, quality, or budget. Issue management is the process to define, communicate, control and learn from issues, so as to minimize adverse impact to the project.

The State will escalate issues for resolution as follows:
Level 1 — Business leads / Subject matter experts
Level 2 — Project Managers / Project Leadership Team
Level 3 — Executive Team

Once an issue has been identified by the Contractor, the Contractor must follow these steps:
Immediately communicate the issue in writing to the MDE Project Manager and other appropriate MDE staff.
The Contractor must log the issue into an issue tracking system which contains the following minimum elements:
Description of issue
Status
Date reported
Resolution deadline
Date resolved
Project impact (e.g., schedule, resources)
Priority
Assigned to
Related risk
Notes
Identify what needs to be done and resources needed to correct the issue.
Receive approval from the MDE Project Manager for appropriate action.
Keep MDE Project Manager and appropriate MDE staff informed on status of issue. Certain critical issues may require updates more frequently than the weekly status and that need will be communicated by the MDE Project Manager.
As part of the Project Status Report, provide a listing of all issues with their current status, deadlines to correct, and actual dates of completion.
Issue closed and so reported would be removed from the issues listing and moved to an archive listing.

Project Risk Management
A risk is an unknown circumstance or event that, if it occurs, may have a positive or negative impact on the project. If the unknown becomes known or the event occurs, a risk may escalate to become an issue. Risk management is the process to define, communicate, control and learn from issues so as to minimize adverse impact to the project.

Because the assessments within this Contract are large-scale and high-stakes, quality and deadlines are of utmost importance. Therefore, the risk assessment must be reviewed, at minimum, during the Kick-Off meeting for each assessment cycle and reviewed monthly thereafter. It must include, but is not limited to, the following:

Establishing a risk management plan including the identification and recording of risk items, prioritization of risks, definition of mitigation strategies, monitoring of risk items, and periodic risk assessment reviews with the State.

Reviewing the project plan and timelines to ensure resources are, or will be, available.
Identify deadlines for items and assessment material designs to allow sufficient time to produce.

Qualitative review and approval of assessment materials by MDE staff designated by the CCI; at a minimum of the beginning, middle, and end of production.

Approval for actual quantities to produce will be given in writing by the CCI, or designee.
Accurate tracking of delivery, retrieval, logging, scanning, and storage of all assessment materials.
For Paper and Pencil Administrations - Preventative maintenance and accurate calibration of scanning equipment.
Identify data management and backup procedures.

The Contractor must submit an updated risk management plan and risk register to the State for approval within 20 business days from the start of the Contract. The Contractor must communicate the status of risks to the State's Project Manager weekly, as required or agreed, and the status must contain the following minimum elements:
Risk
Status
Date documented
Controlled (indicates item managed to minimize risk)
Impact
Description
Trigger event
Mitigation
Likely activities impacted
Owner

Project Change Management
Change management is defined as the process to communicate, assess, monitor, and control changes to system resources and processes. The State employs change management at the project level and in its administration of the Contracts.

The Contractor must employ change management procedures to handle requests that impact schedule or resources and such things as "out-of-scope" requests or enhancements. Change requests must be submitted to the Project Manager and must be approved by the State in writing before they are implemented. DTMB Procurement will issue an addendum to the Contract, via a Contract Change Notice, if the Change request is approved.

Meetings
The Contractor must attend the following meetings:

4.3.1 Kickoff Meeting
Pre-Planning
MDE will suggest date(s) for the Kickoff that needs to occur within 30 days of the start of the Contract.
The Contractor will work closely with MDE to prepare a preliminary agenda and schedule(s) that will be sent to MDE for review and approval no later than 14 days in advance of the Kick-Off Meeting.
The kickoff will include:
A review of key dates, review of the preliminary project schedule and identification of deliverables/tasks needing revision.
A Q&A regarding scope to ensure Contractor's questions are answered or added to an issue log for timely resolution. Topics could include:
assessment tracking
tested roster
data and table structure
test maps production schedule
IBS export
Item rendering
reporting requirements
system interfaces
A Q&A regarding capability of the Contractor to ensure MDE's questions are answered or added to an issue

log for timely resolution.
A review of the risk register.
Kickoff Conduct
The face-to-face meeting will take place in Lansing for no more than two days.
The kickoff will include MDE, Contractor and any subcontractors.
The Contractor must provide minutes including action items within three business days after the meeting to all scheduled to attend.
The Contractor must handle all logistics as described below.

4.3.2 Management Meetings
These meetings are not the same as the Performance Review (Status) Meeting or the Executive Management Meetings.
These meetings, one every three months, can rotate between MDE's office in Lansing, MI, and the Contractor's primary facility. Web conferencing or teleconferencing can also be used.
During these meetings, MDE staff will meet with Contractor's Key Personel and others as required, to review risks and issues for the coming quarter, and both in process and future deliverables/tasks.
MDE reserves the right to require other Contractor staff, identified as key, for specific activities to attend one or more of these meetings. MDE will provide written notification (to the Contractor's Project Manager) requiring the attendance of any such individual in reasonable time for the request to be accommodated.

4.3.3 Executive Meetings
MDE's and the Contractor's senior officers must meet at least twice a year to review overall Contract performance.
These are high-level meetings to review project goals, assess foreseeable risks, address major issues, and discuss financial matters.
The frequency of these meetings may be increased at the discretion of MDE's CCI.
These are all in-person meetings.
The meetings can rotate between the Contractor's primary facility and MDE's office in Lansing, MI.
The first meeting must be held within 60 calendar days of start of the Contract.

4.3.4 Project Status Meetings
The Contractor must attend weekly meetings to review the Contractor's performance under the Contract. This may be adjusted to biweekly at the discretion of the MDE Project Manager. The meetings must be held in Lansing, Michigan, or by teleconference, as mutually agreed by the State and the Contractor. The State will bear no cost for the time and travel of the Contractor for attendance at the meeting. One business day prior to the Project Status Meeting, the Contractor must provide a Status Report with content as defined in Section 4.4, as requested by the MDE Project Manager.

4.3.5 Technical Advisory Committee (TAC) Meetings
The TAC is a panel of nationally recognized assessment experts who provide advice to MDE on complex assessment-related issues. The TAC meetings are conducted and coordinated by MDE.
They are typically convened four times per year and last up to two days each.
Since most of the meetings tend to address assessment administration topics, by invitation, MDE may request the presence of two representatives from the Contractor's staff. Therefore, for budget purposes the Contractor should plan on sending two staff, four times per year, payable only in cases in which the staff is in attendance.

4.3.6 General Meeting Support
In consultation with MDE, identify meeting titles, dates, times, and attendees.
Locate, reserve, and pay for a facility on the date(s) identified. The facility must have:
Seating capacity for the expected attendees.
Microphones to ensure able to clearly hear all participants.
A large display screen that can easily be seen by all on-site attendees.
ADA compliance.
Unless specifically indicated to the contrary, all meetings will be held in Lansing, Michigan.

Communications ability should any participants do so remotely.

Arrange and pay for overnight accommodations for multi-day meetings for any attendee traveling between 50 and 150 miles to the meeting.

Arrange and pay for overnight accommodations for the night before, the night(s) during, and the night following any meeting for any attendee traveling more than 150 miles to the meeting.

Provide transportation for any attendee traveling out of the State.

Must have written approval from MDE's director before transportation arrangements are made.

Provide refreshments (water, coffee, tea, juice, soft drinks, and snacks) for all attendees.

Provide lunches to all attendees for meetings lasting more than four hours and beginning at or before 12 noon local time.

Prepare an agenda including approximate times/duration for each topic for the meeting.

Send out and track invitations to each meeting.

Send copies of agenda with invitations.

Provide copies of notes from any related previous meetings.

Set up and provide a sign-in sheet with the title and date of each meeting.

Ensure that all attendees sign in, including Contractor's staff, MDE staff, and committee members.

Set up a separate sign-in sheet for each date of a multi-day meeting. For example, if one meeting lasts two days then there must be a separate sign-in sheet for each day.

The original sign-in sheets must be given to MDE within five business days following the meeting.

The Contractor must retain a copy of the sign-in sheets for up to two years following the end of the term of the Contract.

Prepare and maintain accurate minutes of each meeting.

Send MDE a copy of the minutes within three business days following the meeting.

Publish final minutes and any stakeholder comments to a password-protected shared data source.

The State may also request other meetings, as it deems appropriate.

4.4   Reporting

The Contractor must submit to the MDE Project Manager the following written reports:

Weekly project status report including accomplishments this week, plans for the coming two weeks, staff changes or unavailability.

Weekly update of the project schedule highlighting all late items.

Weekly issues log including issues closed in the prior week.

Monthly risk log.

And other reports in the approved communication plan.

5.0 Ordering

5.1   Authorizing Document

The appropriate authorizing document for the Contract will be a Purchase Order.

6.0 Invoice and Payment

6.1   Invoice Requirements

All invoices submitted to the State must include: (a) date; (b) purchase order; (c) quantity; (d) description of the Contract Activities; (e) unit price; (f) shipping cost (if any); and (g) total price. Overtime, holiday pay, and travel expenses will not be paid.

Invoices must only be submitted after the deliverable has been approved by MDE as defined in Section 2.1 (above).

Liquidated Damages

Liquidated Damages will apply on all scheduled testing days and will be subject to any limitations of Liability.
Tests, Reports, and Data. It is understood and agreed by the Contractor that time is of the essence in the delivery of tests, reports, and data of the content and quality specified in this Contract, and its proposal document. In the event these specified tests, reports, and data are not available by the dates specified in this Contract or as reflected in schedules, the Contractor and the State agree that if there is late or improper

completion of the Work and the State does not elect to exercise its rights under Section 23 of Standard Terms and Conditions, the State is entitled to collect liquidated damages as shown below when Contractor fails to remedy the late or improper completion of the Work in Exhibit A which includes, but is not limited to Reports; except if the delivery is delayed by an act, negligence, or default on the part of the State of Michigan, public enemy, war, embargo, fire, or explosion not caused by the negligence or intentional act of the Contractor or Contractor's supplier(s), or by riot, sabotage, or labor trouble that results from a cause or causes entirely beyond the control or fault of the Contractor or the Contractor's supplier(s), a reasonable extension of time as the MDE deems appropriate may be granted. Upon receipt of a written request and justification for any extension from the Contractor, the MDE may extend the time for performance of the Contract or delivery of goods therein specified, at the MDE 's sole discretion, for good cause shown.

Issue: The availability of the testing window is delayed per Section 1.1.2.G.24.
Remedy: $37,500.00 for more than 10 minutes up to 60 minutes; $75,000.00 for a delay of one to two hours; $200,000.00 for two to four hours; and for delays of four hours to a complete full class day, an additional $100,000.00 which will increase by $50,000.00 for each day consecutive day this occurs. The State is entitled to collect liquidated damages in the amount of $75,000.00 per day for each day the Contractor fails to remedy the late or improper completion of all other Work in Exhibit A, which includes, but not limited to the delivery of data and reports.

Unauthorized Removal of Key Personnel. It is acknowledged that an Unauthorized Removal of Key Personnel will interfere with the timely and proper completion of the Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to fix the actual damage sustained by the State as a result of any Unauthorized Removal of Key Personnel. Therefore, Contractor and the State agree that in the case of any Unauthorized Removal in respect of which the State does not elect to exercise its rights under Section 23, the State may assess liquidated damages against Contractor as specified below.
For the Unauthorized Removal of any Key Personnel designated in the applicable Statement of Work, the liquidated damages amount is $25,000.00 per individual if the Contractor identifies a replacement approved by the State and assigns the replacement to the Project to shadow the Key Personnel who is leaving for a period of at least 30 days before the Key Personnel's removal.
If Contractor fails to assign a replacement to shadow the removed Key Personnel for at least 30 calendar days, in addition to the $25,000.00 credit specified above, Contractor will credit the State $833.33 per calendar day for each day of the 30 calendar-day shadow period that the replacement Key Personnel does not shadow the removed Key Personnel, up to $25,000.00 maximum per individual. The total Unauthorized Removal Credits that may be assessed per Unauthorized Removal and failure to provide 30 calendar days of shadowing will not exceed $50,000.00 per individual.

STATE OF MICHIGAN

STANDARD CONTRACT TERMS

This STANDARD CONTRACT ("**Contract**") is agreed to between the State of Michigan (the "**State**") and Measurement Incorporated ("**Contractor**"). This Contract is effective on July 1, 2015 ("**Effective Date**"), and unless terminated, expires on June 30, 2018.

This Contract may be renewed for up to five additional one year period(s). Renewal must be by written agreement of the parties.

The parties agree as follows:

Duties of Contractor. Contractor must perform the services and provide the deliverables described in **Exhibit A – Statement of Work** (the "**Contract Activities**"). An obligation to provide delivery of any commodity is considered a service and is a Contract Activity.

Contractor must furnish all labor, equipment, materials, and supplies necessary for the performance of the Contract Activities, and meet operational standards, unless otherwise specified in Exhibit A.

Contractor must: (a) perform the Contract Activities in a timely, professional, safe, and workmanlike manner consistent with standards in the trade, profession, or industry; (b) meet or exceed the performance and operational standards, and specifications of the Contract; (c) provide all Contract Activities in good quality, with no material defects; (d) not interfere with the State's operations; (e) obtain and maintain all necessary licenses, permits or other authorizations necessary for the performance of the Contract; (f) cooperate with the State, including the State's quality assurance personnel, and any third party to achieve the objectives of the Contract; (g) return to the State any State-furnished equipment or other resources in the same condition as when provided when no longer required for the Contract; (h) not make any media releases without prior written authorization from the State; (i) assign to the State any claims resulting from state or federal antitrust violations to the extent that those violations concern materials or services supplied by third parties toward fulfillment of the Contract; (j) comply with all State physical and IT security policies and standards which will be made available upon request; and (k) provide the State priority in performance of the Contract except as mandated by federal disaster response requirements. Any breach under this paragraph is considered a material breach.

Contractor must also be clearly identifiable while on State property by wearing identification issued by the State, and clearly identify themselves whenever making contact with the State.

Notices. All notices and other communications required or permitted under this Contract must be in writing and will be considered given and received: (a) when verified by written receipt if sent by courier; (b) when actually received if sent by mail without verification of receipt; or (c) when verified by automated receipt or electronic logs if sent by facsimile or email.

If to State:	If to Contractor:
Lance Kingsbury	Henry H. Scherich, Ph.D., President
525 West Allegan	Measurement Incorporated
Lansing, MI 48933	423 Morris Street
KingsburyL@michigan.gov	Durham, SC 27701
517-284-7017	hsherich@measinc.com
	(919) 683-2413 ext. 1135

Contract Administrator. The Contract Administrator for each party is the only person authorized to modify any terms and conditions of this Contract (each a "**Contract Administrator**"):

If to State:	If to Contractor:
Lance Kingsbury 525 West Allegan Lansing, MI 48933 KingsburyL@michigan.gov 517-284-7017	Henry H. Scherich, Ph.D., President Measurement Incorporated 423 Morris Street Durham, SC 27701 hsherich@measinc.com (919) 683-2413 ext. 1135

Program Manager. The Program Manager for each party will monitor and coordinate the day-to-day activities of the Contract (each a "**Program Manager**"):

If to State:	If to Contractor:
Mr. Andrew J. Middlestead Director, Office of Standards & Assessment Bureau of Assessment & Accountability P.O. Box 30008 Lansing, MI 48909 517-335-0568 (phone) 517-335-1186 (fax) middlesteada@michigan.gov	Chris McCown Measurement Incorporated 423 Morris Street Durham, NC 27701 919-683-2413 cmccown@measinc.com

Performance Guarantee. Contractor must at all times have financial resources sufficient, in the opinion of the State, to ensure performance of the Contract and must provide proof upon request. The State may require a performance bond (as specified in Exhibit A) if, in the opinion of the State, it will ensure performance of the Contract.

Insurance Requirements. Contractor must maintain the insurances identified below and is responsible for all deductibles. All required insurance must: (a) protect the State from claims that may arise out of, are alleged to arise out of, or result from Contractor's or a subcontractor's performance; (b) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (c) be provided by an company with an A.M. Best rating of "A" or better and a financial size of VII or better.

Insurance Type	Additional Requirements
Commercial General Liability Insurance	
Minimal Limits: $1,000,000.00 Each Occurrence Limit $1,000,000.00 Personal & Advertising Injury Limit $2,000,000.00 General Aggregate Limit $2,000,000.00 Products/Completed Operations Deductible Maximum: $50,000.00 Each Occurrence	Contractor must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 2010 07 04 and CG 2037 07 04; (2) include a waiver of subrogation; and (3) for a claims-made policy, provide three years of tail coverage.
Umbrella or Excess Liability Insurance	
Minimal Limits: $10,000,000.00 General Aggregate	Contractor must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds, and (2) include a waiver of subrogation.
Workers' Compensation Insurance	
Minimal Limits: Coverage according to applicable laws governing work	Waiver of subrogation, except where waiver is prohibited by law.

activities.	
Employers Liability Insurance	
<u>Minimal Limits:</u> $100,000.00 Each Accident $100,000.00 Each Employee by Disease $500,000.00 Aggregate Disease.	
Cyber Liability Insurance	
<u>Minimal Limits:</u> $1,000,000.00 Each Occurrence $1,000,000.00 Annual Aggregate	Contractor must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds; and (2) cover information security and privacy liability, privacy notification costs, regulatory defense and penalties, and website media content liability.
Hired and Non-Owned Motor Vehicle Insurance	
<u>Minimal Limits:</u> $1,000,000.00 Per Accident	Contractor must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds, and (2) include a waiver of subrogation.
Professional Liability (Errors and Omissions) Insurance	
<u>Minimal Limits:</u> $3,000,000.00 Each Occurrence $3,000,000.00 Annual Aggregate <u>Deductible Maximum:</u> $50,000.00 Per Loss	

If Contractor's policy contains limits higher than the minimum limits, the State is entitled to coverage to the extent of the higher limits. The minimum limits are not intended, and may not be construed to limit any liability or indemnity of Contractor to any indemnified party or other persons.

Contractor must: (a) provide insurance certificates to the Contract Administrator, containing the agreement or purchase order number, at Contract formation and within 20 calendar days of the expiration date of the applicable policies; (b) require that subcontractors maintain the required insurances contained in this Section; (c) notify the Contract Administrator within five business days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

Reserved

8. Reserved

9. Independent Contractor. Contractor is an independent contractor and assumes all rights, obligations and liabilities set forth in this Contract. Contractor, its employees, and agents will not be considered employees of the State. No partnership or joint venture relationship is created by virtue of this Contract. Contractor, and not the State, is responsible for the payment of wages, benefits and taxes of Contractor's employees and any subcontractors. Prior performance does not modify Contractor's status as an independent contractor.

Subcontracting. Contractor may not delegate any of its obligations under the Contract without the prior written approval of the State. Contractor must notify the State at least 90 calendar days before the proposed delegation, and provide the State any information it requests to determine whether the delegation is in its best interest. If approved, Contractor must: (a) be the sole point of contact regarding all contractual matters, including payment and charges for all Contract Activities; (b) make all payments to the subcontractor; and (c) incorporate the terms and conditions contained in this Contract in any subcontract with a subcontractor. Contractor remains responsible for the completion of the Contract Activities, compliance with the terms of this Contract, and the acts and omissions of the subcontractor. The State, in its sole discretion, may require the replacement of any subcontractor.

Staffing. The State's Contract Administrator may require Contractor to remove or reassign personnel by providing a notice to Contractor.

Background Checks. Upon request, Contractor must perform background checks on all employees and subcontractors and its employees prior to their assignment. The scope is at the discretion of the State and documentation must be provided as requested. Contractor is responsible for all costs associated with the requested background checks. The State, in its sole discretion, may also perform background checks.

Assignment. Contractor may not assign this Contract to any other party without the prior approval of the State. Upon notice to Contractor, the State, in its sole discretion, may assign in whole or in part, its rights or responsibilities under this Contract to any other party. If the State determines that a novation of the Contract to a third party is necessary, Contractor will agree to the novation, provide all necessary documentation and signatures, and continue to perform, with the third party, its obligations under the Contract.

Change of Control. Contractor will notify, at least 90 calendar days before the effective date, the State of a change in Contractor's organizational structure or ownership. For purposes of this Contract, a change in control means any of the following: (a) a sale of more than 50% of Contractor's stock; (b) a sale of substantially all of Contractor's assets; (c) a change in a majority of Contractor's board members; (d) consummation of a merger or consolidation of Contractor with any other entity; (e) a change in ownership through a transaction or series of transactions; (f) or the board (or the stockholders) approves a plan of complete liquidation. A change of control does not include any consolidation or merger effected exclusively to change the domicile of Contractor, or any transaction or series of transactions principally for bona fide equity financing purposes.

In the event of a change of control, Contractor must require the successor to assume this Contract and all of its obligations under this Contract.

Ordering. Contractor is not authorized to begin performance until receipt of authorization as identified in Exhibit A.

Acceptance. Contract Activities are subject to inspection and testing by the State within 30 calendar days of the State's receipt of them ("**State Review Period**"), unless otherwise provided in Exhibit A. If the Contract Activities are not fully accepted by the State, the State will notify Contractor by the end of the State Review Period that either: (a) the Contract Activities are accepted, but noted deficiencies must be corrected; or (b) the Contract Activities are rejected. If the State finds material deficiencies, it may: (i) reject the Contract Activities without performing any further inspections; (ii) demand performance at no additional cost; or (iii) terminate this Contract in accordance with Section 0, Termination for Cause.

Within 10 business days from the date of Contractor's receipt of notification of acceptance with deficiencies or rejection of any Contract Activities, Contractor must cure, at no additional cost, the deficiency and deliver unequivocally acceptable Contract Activities to the State. If acceptance with deficiencies or rejection of the Contract Activities impacts the content or delivery of other non-completed Contract Activities, the parties' respective Program Managers must determine an agreed to number of days for re-submission that minimizes the overall impact to the Contract. However, nothing herein affects, alters, or relieves Contractor of its obligations to correct deficiencies in accordance with the time response standards set forth in this Contract.

If Contractor is unable or refuses to correct the deficiency within the time response standards set forth in this Contract, the State may cancel the order in whole or in part. The State, or a third party identified by the State, may perform the Contract Activities and recover the difference between the cost to cure and the Contract price plus an additional 10% administrative fee.

Delivery. Contractor must deliver all Contract Activities F.O.B. destination, within the State premises with transportation and handling charges paid by Contractor, unless otherwise specified in Exhibit A. All containers and packaging becomes the State's exclusive property upon acceptance.

Risk of Loss and Title. Until final acceptance, title and risk of loss or damage to Contract Activities remains with Contractor. Contractor is responsible for filing, processing, and collecting all damage claims. The State will record and report to Contractor any evidence of visible damage. If the State rejects the Contract Activities, Contractor must remove them from the premises within 10 calendar days after notification of rejection. The risk of loss of rejected or non-conforming Contract Activities remains with Contractor. Rejected Contract Activities not removed by Contractor within 10 calendar days will be deemed abandoned by Contractor, and the State will have the right to dispose of it as its own property. Contractor must reimburse the State for costs and expenses incurred in storing or effecting removal or disposition of rejected Contract Activities.

Warranty Period. The warranty period, if applicable, for Contract Activities is a fixed period commencing on the date specified in Exhibit A. If the Contract Activities do not function as warranted during the warranty period the State may return such non-conforming Contract Activities to the Contractor for a full refund.

Terms of Payment. Invoices must conform to the requirements communicated from time-to-time by the State. All undisputed amounts are payable within 45 days of the State's receipt. Contractor may only charge for Contract Activities performed as specified in Exhibit A. Invoices must include an itemized statement of all charges. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Contract Activities purchased under the Contract are for the State's exclusive use. Prices are exclusive of all taxes, and Contractor is solely responsible for payment of any applicable taxes.

The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of the disputed amount. The State will notify Contractor of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to Contractor's continuing obligations, including claims for deficiencies or substandard Contract Activities. Contractor's acceptance of final payment by the State constitutes a waiver of all claims by Contractor against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at http://www.michigan.gov/cpexpress to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

Liquidated Damages. Liquidated damages, if applicable, will be assessed as described in Exhibit A..

Stop Work Order. The State may suspend any or all activities under the Contract at any time. The State will provide Contractor a written stop work order detailing the suspension. Contractor must comply with the stop work order upon receipt. Within 90 calendar days, or any longer period agreed to by Contractor, the State will either: (a) issue a notice authorizing Contractor to resume work, or (b) terminate the Contract or purchase order. The State will not pay for Contract Activities, Contractor's lost profits, or any additional compensation during a stop work period.

Termination for Cause. The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State: (a) endangers the value, integrity, or security of any location, data, or personnel; (b) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding

filed against it by any creditor; (c) engages in any conduct that may expose the State to liability; (d) breaches any of its material duties or obligations; or (e) fails to cure a breach within the time stated in a notice of breach. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

If the State terminates this Contract under this Section, the State will issue a termination notice specifying whether Contractor must: (a) cease performance immediately, or (b) continue to perform for a specified period. If it is later determined that Contractor was not in breach of the Contract, the termination will be deemed to have been a Termination for Convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in Section 24, Termination for Convenience.

The State will only pay for amounts due to Contractor for Contract Activities accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. The Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, transition costs, and any costs the State incurs to procure the Contract Activities from other sources.

Termination for Convenience. The State may immediately terminate this Contract in whole or in part without penalty and for any reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance of the Contract Activities immediately, or (b) continue to perform the Contract Activities in accordance with Section 0, Transition Responsibilities. If the State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities.

Transition Responsibilities. Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 90 calendar days), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract Activities to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Contract Activities to the State or its designees. Such transition assistance may include, but is not limited to: (a) continuing to perform the Contract Activities at the established Contract rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Contract Activities, training, equipment, software, leases, reports and other documentation, to the State or the State's designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all materials, data, property, and confidential information provided directly or indirectly to Contractor by any entity, agent, vendor, or employee of the State; (d) transferring title in and delivering to the State, at the State's discretion, all completed or partially completed deliverables prepared under this Contract as of the Contract termination date; and (e) preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts (collectively, "**Transition Responsibilities**"). This Contract will automatically be extended through the end of the transition period.

General Indemnification. Contractor must defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to: (a) any breach by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable) of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract; (b) any infringement, misappropriation, or other violation of any intellectual property right or other right of any third party; (c) any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to action or inaction by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable); and (d) any acts or omissions of Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable).

The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations.

The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense if the State deems necessary. Contractor will not, without the State's written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. To the extent that any State employee, official, or law may be involved or challenged, the State may, at its own expense, control the defense of that portion of the claim.

Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

Infringement Remedies. If, in either party's opinion, any piece of equipment, software, commodity, or service supplied by Contractor or its subcontractors, or its operation, use or reproduction, is likely to become the subject of a copyright, patent, trademark, or trade secret infringement claim, Contractor must, at its expense: (a) procure for the State the right to continue using the equipment, software, commodity, or service, or if this option is not reasonably available to Contractor, (b) replace or modify the same so that it becomes non-infringing; or (c) accept its return by the State with appropriate credits to the State against Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

Limitation of Liability. The State is not liable for consequential, incidental, indirect, or special damages, regardless of the nature of the action.

Disclosure of Litigation, or Other Proceeding. Contractor must notify the State within 14 calendar days of receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "**Proceeding**") involving Contractor, a subcontractor, or an officer or director of Contractor or subcontractor, that arises during the term of the Contract, including: (a) a criminal Proceeding; (b) a parole or probation Proceeding; (c) a Proceeding under the Sarbanes-Oxley Act; (d) a civil Proceeding involving: (1) a claim that might reasonably be expected to adversely affect Contractor's viability or financial stability; or (2) a governmental or public entity's claim or written allegation of fraud; or (e) a Proceeding involving any license that Contractor is required to possess in order to perform under this Contract.

State Data. All data and information provided to Contractor by or on behalf of the State, and all data and information derived therefrom, is the exclusive property of the State ("**State Data**"); this definition is to be construed as broadly as possible. Upon request, Contractor must provide to the State, or a third party designated by the State, all State Data within 10 calendar days of the request and in the format requested by the State. Contractor will assume all costs incurred in compiling and supplying State Data. No State Data may be used for any marketing purposes.

Ownership. The State's data ("**State Data**," which will be treated by Contractor as Confidential Information) includes: (a) the State's data collected, used, processed, stored, or generated as the result of the Contract Activities; (b) personally identifiable information ("**PII**") collected, used, processed, stored, or generated as the result of the Contract Activities, including, without limitation, any information that identifies an individual, such as an individual's social security number or other government-issued identification number, date of birth, address, telephone number, biometric data, mother's maiden name, email address, credit card information, or an individual's name in combination with any other of the elements here listed; and, (c) personal health information ("**PHI**") collected, used, processed, stored, or generated as the result of the Contract Activities, which is defined under the Health Insurance Portability and Accountability Act (HIPAA) and its related rules and regulations. State Data is and will remain the sole and exclusive property of the State and all right, title, and interest in the same is reserved by the State. This Section survives the termination of this Contract.

Contractor Use of State Data. Contractor is provided a limited license to State Data for the sole and exclusive purpose of providing the Contract Activities, including a license to collect, process, store, generate, and display State Data only to the extent necessary in the provision of the Contract Activities. Contractor must: (a) keep and maintain State Data in strict confidence, using such degree of care as is appropriate and consistent with its obligations as further described in this Contract and applicable law to avoid unauthorized access, use, disclosure, or loss; (b) use and disclose State Data solely and exclusively for the purpose of providing the Contract Activities, such use and disclosure being in accordance with this Contract, any applicable Statement of Work, and applicable law; and (c) not use, sell, rent, transfer, distribute, or otherwise disclose or make available State Data for Contractor's own purposes or for the benefit of anyone other than the State without the State's prior written consent. This Section survives the termination of this Contract.

Extraction of State Data. Contractor must, within one business day of the State's request, provide the State, without charge and without any conditions or contingencies whatsoever (including but not limited to the payment of any fees due to Contractor), an extract of the State Data in the format specified by the State.

Backup and Recovery of State Data. Unless otherwise specified in Exhibit A, Contractor is responsible for maintaining a backup of State Data and for an orderly and timely recovery of such data. Unless otherwise described in Exhibit A, Contractor must maintain a contemporaneous backup of State Data that can be recovered within two hours at any point in time.

Loss of Data. In the event of any act, error or omission, negligence, misconduct, or breach that compromises or is suspected to compromise the security, confidentiality, or integrity of State Data or the physical, technical, administrative, or organizational safeguards put in place by Contractor that relate to the protection of the security, confidentiality, or integrity of State Data, Contractor must, as applicable: (a) notify the State as soon as practicable but no later than 24 hours of becoming aware of such occurrence; (b) cooperate with the State in investigating the occurrence, including making available all relevant records, logs, files, data reporting, and other materials required to comply with applicable law or as otherwise required by the State; (c) in the case of PII or PHI, at the State's sole election, (i) notify the affected individuals who comprise the PII or PHI as soon as practicable but no later than is required to comply with applicable law, or, in the absence of any legally required notification period, within five calendar days of the occurrence; or (ii) reimburse the State for any costs in notifying the affected individuals; (d) in the case of PII, provide third-party credit and identity monitoring services to each of the affected individuals who comprise the PII for the period required to comply with applicable law, or, in the absence of any legally required monitoring services, for no less than 24 months following the date of notification to such individuals; (e) perform or take any other actions required to comply with applicable law as a result of the occurrence; (f) without limiting Contractor's obligations of indemnification as further described in this Contract, indemnify, defend, and hold harmless the State for any and all claims, including reasonable attorneys' fees, costs, and expenses incidental thereto, which may be suffered by, accrued against, charged to, or recoverable from the State in connection with the occurrence; (g) be responsible for recreating lost State Data in the manner and on the schedule set by the State without charge to the State; and, (h) provide to the State a detailed plan within 10 calendar days of the occurrence describing the measures Contractor will undertake to prevent a future occurrence. Notification to affected individuals, as described above, must comply with applicable law, be written in plain language, and contain, at a minimum: name and contact information of Contractor's representative; a description of the nature of the loss; a list of the types of data involved; the known or approximate date of the loss; how such loss may affect the affected individual; what steps Contractor has taken to protect the affected individual; what steps the affected individual can take to protect himself or herself; contact information for major credit card reporting agencies; and, information regarding the credit and identity monitoring services to be provided by Contractor. This Section survives the termination of this Contract.

Non-Disclosure of Confidential Information. The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged communication not intended to be disclosed to third parties. The provisions of this Section survive the termination of this Contract.

Meaning of Confidential Information. For the purposes of this Contract, the term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked "confidential" or with words of similar meaning; and, (c) should reasonably be recognized as confidential information of the disclosing party. The term "Confidential Information" does not include any information or documentation that was: (a) subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf of, the receiving party). For purposes of this Contract, in all cases and for all matters, State Data is deemed to be Confidential Information.

Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to a subcontractor is permissible where: (a) use of a subcontractor is authorized under this Contract; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the subcontractor's responsibilities; and (c) Contractor obligates the subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor or any subcontractor may be required to execute a separate agreement to be bound by the provisions of this Section.

Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract and each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.

Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.

Surrender of Confidential Information upon Termination. Upon termination of this Contract or a Statement of Work, in whole or in part, each party must, within five calendar days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control; provided, however, that Contractor must return State Data to the State following the timeframe and procedure described further in this Contract. Should Contractor or the State determine that the return of any non-State Data Confidential Information is not feasible, such party must destroy the non-State Data Confidential Information and must certify the same in writing within five calendar days from the date of termination to the other party.

Data Privacy and Information Security.

Undertaking by Contractor. Without limiting Contractor's obligation of confidentiality as further described, Contractor is responsible for establishing and maintaining a data privacy and information security program, including physical, technical, administrative, and organizational safeguards, that is designed to: (a) ensure the

security and confidentiality of the State Data; (b) protect against any anticipated threats or hazards to the security or integrity of the State Data; (c) protect against unauthorized disclosure, access to, or use of the State Data; (d) ensure the proper disposal of State Data; and (e) ensure that all employees, agents, and subcontractors of Contractor, if any, comply with all of the foregoing. In no case will the safeguards of Contractor's data privacy and information security program be less stringent than the safeguards used by the State, and Contractor must at all times comply with all applicable State IT policies and standards, which are available to Contractor upon request.

Audit by Contractor. No less than annually, Contractor must conduct a comprehensive independent third-party audit of its data privacy and information security program and provide such audit findings to the State.

Right of Audit by the State. Without limiting any other audit rights of the State, the State has the right to review Contractor's data privacy and information security program prior to the commencement of Contract Activities and from time to time during the term of this Contract. During the providing of the Contract Activities, on an ongoing basis from time to time and without notice, the State, at its own expense, is entitled to perform, or to have performed, an on-site audit of Contractor's data privacy and information security program. In lieu of an on-site audit, upon request by the State, Contractor agrees to complete, within 45 calendar days of receipt, an audit questionnaire provided by the State regarding Contractor's data privacy and information security program.

Audit Findings. Contractor must implement any required safeguards as identified by the State or by any audit of Contractor's data privacy and information security program.

State's Right to Termination for Deficiencies. The State reserves the right, at its sole election, to immediately terminate this Contract or a Statement of Work without limitation and without liability if the State determines that Contractor fails or has failed to meet its obligations under this Section.

Reserved

Reserved

Records Maintenance, Inspection, Examination, and Audit. The State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain, and provide to the State or its designee and the auditor general upon request, all financial and accounting records related to the Contract through the term of the Contract and for seven years after the latter of termination, expiration, or final payment under this Contract or any extension ("**Audit Period**"). If an audit, litigation, or other action involving the records is initiated before the end of the Audit Period, Contractor must retain the records until all issues are resolved.

Within 10 calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Contract Activities are being performed, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If any financial errors are revealed, the amount in error must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of the Contract must be paid or refunded within 45 calendar days.

This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.

Warranties and Representations. Contractor represents and warrants: (a) Contractor is the owner or licensee of any Contract Activities that it licenses, sells, or develops, and Contractor has the rights necessary to convey title, ownership rights, or licensed use; (b) all Contract Activities are delivered free from any security interest, lien, or encumbrance and will continue in that respect; (c) the Contract Activities will not infringe the patent, trademark, copyright, trade secret, or other proprietary rights of any third party; (d) Contractor must assign or otherwise transfer to the State or its designee any manufacturer's warranty for the Contract Activities;

(e) the Contract Activities are merchantable and fit for the specific purposes identified in the Contract; (f) the Contract signatory has the authority to enter into this Contract; (g) all information furnished by Contractor in connection with the Contract fairly and accurately represents Contractor's business, properties, finances, and operations as of the dates covered by the information, and Contractor will inform the State of any material adverse changes; and (h) all information furnished and representations made in connection with the award of this Contract is true, accurate, and complete, and contains no false statements or omits any fact that would make the information misleading. A breach of this Section is considered a material breach of this Contract, which entitles the State to terminate this Contract under Section 0, Termination for Cause.

Conflicts and Ethics. Contractor will uphold high ethical standards and is prohibited from: (a) holding or acquiring an interest that would conflict with this Contract; (b) doing anything that creates an appearance of impropriety with respect to the award or performance of the Contract; (c) attempting to influence or appearing to influence any State employee by the direct or indirect offer of anything of value; or (d) paying or agreeing to pay any person, other than employees and consultants working for Contractor, any consideration contingent upon the award of the Contract. Contractor must immediately notify the State of any violation or potential violation of these standards. This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.

Compliance with Laws. Contractor must comply with all federal, state and local laws, rules and regulations.

Prevailing Wage. This Contract and any subcontract is subject to the Prevailing Wage Act, 1965 PA 166. Contractor must comply with the state prevailing wage law and its requirements.

Nondiscrimination. Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq.*, and the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq.*, Contractor and its subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or mental or physical disability. Breach of this covenant is a material breach of this Contract.

Unfair Labor Practice. Under MCL 423.324, the State may void any Contract with a Contractor or subcontractor who appears on the Unfair Labor Practice register complied under MCL 423.322.

Governing Law. This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in Michigan Court of Claims. Contractor consents to venue in Ingham County, and waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint agents in Michigan to receive service of process.

Non-Exclusivity. Nothing contained in this Contract is intended nor will be construed as creating any requirements contract with Contractor. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Contract Activities from other sources.

Force Majeure. Neither party will be in breach of this Contract because of any failure arising from any disaster or acts of god that are beyond their control and without their fault or negligence. Each party will use commercially reasonable efforts to resume performance. Contractor will not be relieved of a breach or delay caused by its subcontractors. If immediate performance is necessary to ensure public health and safety, the State may immediately contract with a third party.

Dispute Resolution. The parties will endeavor to resolve any Contract dispute in accordance with this provision. The dispute will be referred to the parties' respective Contract Administrators or Program Managers. Such referral must include a description of the issues and all supporting documentation. The parties must submit the dispute to a senior executive if unable to resolve the dispute within 15 business days. The parties

will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance.

Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' senior executive and either concludes that resolution is unlikely, or fails to respond within 15 business days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This Section does not limit the State's right to terminate the Contract.

Media Releases. News releases (including promotional literature and commercial advertisements) pertaining to the Contract or project to which it relates must not be made without prior written State approval, and then only in accordance with the explicit written instructions of the State.

Website Incorporation. The State is not bound by any content on Contractor's website unless expressly incorporated directly into this Contract.

Order of Precedence. In the event of a conflict between the terms and conditions of the Contract, the exhibits, a purchase order, or an amendment, the order of precedence is: (a) the purchase order; (b) the amendment; (c) Exhibit A; (d) any other exhibits; and (e) the Contract.

Severability. If any part of this Contract is held invalid or unenforceable, by any court of competent jurisdiction, that part will be deemed deleted from this Contract and the severed part will be replaced by agreed upon language that achieves the same or similar objectives. The remaining Contract will continue in full force and effect.

Waiver. Failure to enforce any provision of this Contract will not constitute a waiver.

Survival. The provisions of this Contract that impose continuing obligations, including warranties and representations, termination, transition, insurance coverage, indemnification, and confidentiality, will survive the expiration or termination of this Contract.

Entire Contract and Modification. This Contract is the entire agreement and replaces all previous agreements between the parties for the Contract Activities. This Contract may not be amended except by signed agreement between the parties (a "**Contract Change Notice**").

Exhibit C
Pricing

Description	Unit Type	Measurement Inc.									3 Yr Contract
		Contracted			Contracted			Contracted			
		Year 2015-2016			Year 2016-2017			Year 2017-2018			
		Quantity	Rate Per Unit	Amount	Quantity	Rate Per Unit	Amount	Quantity	Rate Per Unit	Amount	
General Administration											
Administration Briefings (Per Meeting) (Do Not Include Staff Travel)	Meeting	3	$3,550	$10,650.00	3	$3,621	$10,863.00	3	$3,693	$11,079.00	$32,592.00
Staff Participation in In-Person Meetings			-	-		-	-		-	-	-
Contractor Travel (State Rates)	Prsn/mtg	40	$600	$24,000.00	40	$600	$24,000.00	40	$600	$24,000.00	$72,000.00
Food and Lodging	Prsn/day	56	$170	$9,520.00	56	$170	$9,520.00	56	$170	$9,520.00	$28,560.00
Call Center	Annual	1	$171,550	$171,550.00	1	$174,981	$174,981.00	1	$178,481	$178,481.00	$525,012.00
Program/Development assistance and MDE Staff Improvement (Pre-approved actual cost)	Actual Cost	227,273	$1.00	$227,273.00	227,273	$1.00	$227,273.00	227,272	$1.00	$227,272.00	$681,818.00
Indirect Mark-up for Program/Development Assistance (% rate above actual cost for On-Site Assistance Line Item)	On-Site Asst Amt	227,273	$0.10	$22,727.30	227,273	$0.10	$22,727.30	227,272	$0.10	$22,727.20	$68,181.80
Contingency (only applied in the aggregate)		250,000	$1.00	$250,000.00	250,000	$1.00	$250,000.00	250,000	$1.00	$250,000.00	$750,000.00
Electronic Reporting	Annual	1		-	1		-	1		-	-

	Unit	Qty	Rate	Extended	Qty	Rate	Extended	Qty	Rate	Extended	Total
Paper Reporting	Annual	1		-	1		-	1		-	-
Psychometric Services	P/C/G	49	$4,216	$206,584.00	49	$4,343	$212,789.85	49	$4,473	$219,162.30	$638,536.15
Student Growth Percentile	Annual	-	-	-	-	-	-	-	-	-	-
Electronic Document Management Site (Sharepoint)	Annual	1	$19,436	$19,436.00	1	$19,825	$19,825.00	1	$20,221	$20,221.00	$59,482.00
General Administration Subtotal				**$941,740.30**			**$951,979.15**			**$962,462.50**	**$2,856,181.95**
Paper/Pencil Administration and Scoring											
Paper/Pencil test administration covers all deliverables of 1.0 and explicitly referenced in Table A.3.											
For this section, the rates have been applied from Table A.2 below, assuming 25% participation the 1st year, 18% the 2nd year, and 12% the 3rd year for the General Assessment, and 100% participation for all 3 years for MI-Access.											
General Assessment	Per Student/ content/ per test administered	720,000	$6.340	$4,564,800.00	518,400	$6.360	$3,297,024.00	345,600	$6.360	$2,198,016.00	$10,059,840.00
Grade 9 Assessment	Per Student	120,000	$8.000	$960,000.00	120,000	$8.000	$960,000.00	120,000	$8.000	$960,000.00	$2,880,000.00

Grade 10 Assessment	Per Student	120,000	$12.0000	$1,440,000.00	120,000	$12.0000	$1,440,000.00	120,000	$12.0000	$1,440,000.00	$4,320,000.00
MI-Access (See Scope section of RFP)	Per Student/ content/ per test administered	20,000	$29.9300	$598,600.00	20,000	$29.9300	$598,600.00	20,000	$29.9300	$598,600.00	$1,795,800.00
Paper/Pencil Admin. and Scoring Subtotal (See Scope section of the RFP)				**$7,563,400.00**			**$6,295,624.00**			**$5,196,616.00**	**$19,055,640.00**
Technical Report:											
Technical Report	Assessment	3	$3,333	$10,000.00	3	$3,333	$10,000.00	3	$3,333	$10,000.00	$30,000.00
Technical Report Subtotal				**$10,000.00**			**$10,000.00**			**$10,000.00**	**$30,000.00**
Constructed Response Rangefinding											
Rangefinding Meetings:											
Grade K	Meeting	-	-	-	-	-	-	-	-	-	-
Grade 1	Meeting	-	-	-	-	-	-	-	-	-	-
Grade 2	Meeting	-	-	-	-	-	-	-	-	-	-
Grade 3	Meeting	2	$20,251	$40,502.00	2	$20,656	$41,312.00	2	$21,069	$42,138.00	$123,952.00
Grade 4	Meeting	2	$20,251	$40,502.00	2	$20,656	$41,312.00	2	$21,069	$42,138.00	$123,952.00
Grade 5	Meeting	2	$20,251	$40,502.00	2	$20,656	$41,312.00	2	$21,069	$42,138.00	$123,952.00

Grade 6	Meeting	2	$20,251	$40,502.00	2	$20,656	$41,312.00	2	$21,069	$42,138.00	$123,952.00
Grade 7	Meeting	2	$20,251	$40,502.00	2	$20,656	$41,312.00	2	$21,069	$42,138.00	$123,952.00
Grade 8	Meeting	2	$20,251	$40,502.00	2	$20,656	$41,312.00	2	$21,069	$42,138.00	$123,952.00
Grade 9	Meeting	2	$20,251	$40,502.00	2	$20,656	$41,312.00	2	$21,069	$42,138.00	$123,952.00
Grade 10	Meeting	2	$20,251	$40,502.00	2	$20,656	$41,312.00	2	$21,069	$42,138.00	$123,952.00
Grade 11	Meeting	2	$20,251	$40,502.00	2	$20,656	$41,312.00	2	$21,069	$42,138.00	$123,952.00
Grade 12	Meeting	2	$20,251	$40,502.00	2	$20,656	$41,312.00	2	$21,069	$42,138.00	$123,952.00
Percentage Discount for Short Answer Responses (SA)	Per Item		-			-			-		
Rangefinding Subtotal				**$405,020.00**			**$413,120.00**			**$421,380.00**	**$1,239,520.00**
Artificial Intelligence Scoring											
Artificial Intelligence Model Building **INCLUDED**	Rsp Item	24	-	-	24	-	-	24	-	-	-
AI Scoring:			-	-		-	-		-	-	-
Grade K	Rsp Scr	-	-	-	-	-	-	-	-	-	-
Grade 1	Rsp Scr	-	-	-	-	-	-	-	-	-	-
Grade 2	Rsp Scr	-	-	-	-	-	-	-	-	-	-

Grade 3	Rsp Scr	2,004,000	$0.35	$701,400.00	2,727,840	$0.35	$954,744.00	2,782,560	$0.35	$973,896.00	$2,630,040.00
Grade 4	Rsp Scr	2,004,000	$0.35	$701,400.00	2,727,840	$0.35	$954,744.00	2,782,560	$0.35	$973,896.00	$2,630,040.00
Grade 5	Rsp Scr	2,004,000	$0.35	$701,400.00	2,727,840	$0.35	$954,744.00	2,782,560	$0.35	$973,896.00	$2,630,040.00
Grade 6	Rsp Scr	2,004,000	$0.35	$701,400.00	2,727,840	$0.35	$954,744.00	2,782,560	$0.35	$973,896.00	$2,630,040.00
Grade 7	Rsp Scr	2,004,000	$0.35	$701,400.00	2,727,840	$0.35	$954,744.00	2,782,560	$0.35	$973,896.00	$2,630,040.00
Grade 8	Rsp Scr	2,004,000	$0.35	$701,400.00	2,727,840	$0.35	$954,744.00	2,782,560	$0.35	$973,896.00	$2,630,040.00
Grade 9	Rsp Scr	894,980	$0.35	$313,243.00	1,266,834	$0.35	$443,391.90	1,279,351	$0.35	$447,772.85	$1,204,407.75
Grade 10	Rsp Scr	467,877	$0.35	$163,756.95	667,118	$0.35	$233,491.30	667,628	$0.35	$233,669.80	$630,918.05
Grade 11	Rsp Scr	2,004,000	$0.35	$701,400.00	2,727,840	$0.35	$954,744.00	2,782,560	$0.35	$973,896.00	$2,630,040.00
Grade 12	Rsp Scr		$0.35	-		$0.35	-		$0.35	-	-
Percentage Discount for Short Answer Responses (SA)	Per Item		-			-			-		
Artificial Intelligence Scoring Subtotal				**$5,386,799.95**			**$7,360,091.20**			**$7,498,714.65**	**$20,245,605.80**
Handscoring (20% Read Behind yr 1, 10% yr 2, if AI used))											
Grade K through 12 (Rsp Scr = Response Score)											

Preparation of Training and Qualifying Sets for Scoring	Annual	1	$122,080	$122,080.00	1	$124,522	$124,522.00	1	$127,012	$127,012.00	$373,614.00
Handscoring:			-	-		-	-		-	-	-
Grade K	Rsp Scr	-	-	-	-	-	-	-	-	-	-
Grade 1	Rsp Scr	-	-	-	-	-	-	-	-	-	-
Grade 2	Rsp Scr	-	-	-	-	-	-	-	-	-	-
Grade 3	Rsp Scr	1,308,000	$0.71	$928,680.00	1,034,160	$0.72	$744,595.20	979,440	$0.74	$724,785.60	$2,398,060.80
Grade 4	Rsp Scr	1,308,000	$0.71	$928,680.00	1,034,160	$0.72	$744,595.20	979,440	$0.74	$724,785.60	$2,398,060.80
Grade 5	Rsp Scr	1,308,000	$0.72	$941,760.00	1,034,160	$0.74	$765,278.40	979,440	$0.75	$734,580.00	$2,441,618.40
Grade 6	Rsp Scr	1,308,000	$0.72	$941,760.00	1,034,160	$0.74	$765,278.40	979,440	$0.75	$734,580.00	$2,441,618.40
Grade 7	Rsp Scr	1,308,000	$0.74	$967,920.00	1,034,160	$0.75	$775,620.00	979,440	$0.77	$754,168.80	$2,497,708.80
Grade 8	Rsp Scr	1,308,000	$0.74	$967,920.00	1,034,160	$0.75	$775,620.00	979,440	$0.77	$754,168.80	$2,497,708.80
Grade 9	Rsp Scr	584,148	$0.79	$461,476.92	480,274	$0.81	$389,021.44	450,322	$0.82	$369,264.04	$1,219,762.40
Grade 10	Rsp Scr	305,381	$0.90	$274,842.90	252,913	$0.92	$232,679.96	235,000	$0.94	$220,900.00	$728,422.86
Grade 11	Rsp Scr	1,308,000	$0.90	$1,177,200.00	1,034,160	$0.92	$951,427.20	979,440	$0.94	$920,673.60	$3,049,300.80
Grade 12	Rsp Scr		$0.90	-		$0.92	-		$0.94	-	-

Percentage Discount for Short Answer Responses (SA)	Per Item	-		-		-	
Handscoring Subtotal		$7,712,319.82		$6,268,637.80		$6,064,918.44	$20,045,876.06
Constructed Response Subtotal (line 41, 60, 80)		$13,504,139.77		$14,041,849.00		$13,985,013.09	$41,531,001.86
Michigan/ConsortiaTotal		$22,019,280.07		$21,299,452.15		$20,154,091.59	$63,472,823.81

TABLE A.2												
Paper/Pencil Administration												
Percentage of Estimated Cap for General Assessments of 120,000 students per grade, testing ELA and Mathematics grades 3-11, Science in grades 4, 7, and 11, and Social Studies in grades 5, 8, and 11. Total cap would be approximately 2,880,000 assessments. *Realistically, MDE does not anticipate anymore than a 30% participation rate in the paper/pencil program for the duration of this contract.*		0-10%	10.01-20%	20.01-30%	30.01-40%	40.01-50%	50.01-60%	60.01-70%	70.01-80%	80.01-90%	90.01-100%
Pricing is based on Paper/Pencil administration including all costs for testing materials, scanning/scoring/storage/disposal, packing/distribution/receipt of testing materials, and accommodated materials as outlined in Table A.3 below												
General Assessment			6.36	6.36	6.34	6.34	6.36	6.36	6.35	6.35	6.37	6.37
MI-Access (See Scope section of RFP)			30.03	30.03	29.97	29.97	29.97	29.97	29.93	29.93	29.93	29.93

TABLE A.3

Testing Materials (Paper/pencil)

Pricing includes the following:

General Assessment:	Reference	Unit Type
Accommodation Materials	1.1.11.C	
Design and Compose Braille Versions, including the chart of elements		Assessment
Design and Compose Enlarged-Print Versions		Assessment
Assessment Administrator Manual for Braille		Prog/Gr/Cont
Setup for Refreshable Braille		Grade/Content
Asssement Administration Manual for Students Testing with Accommodations		Assessment
Audio Accommodation Masters:		
Audio Master creation		Master
Video Accommodation Masters:		
Video Master Creation for English Versions		Master
Video Master for Spanish Versions (English Versions must be completed first)		Master
Video Master for Arabic Versions (English Versions must be completed first)		Master
Compact Disk Duplication		Each
DVD Duplication		Each
Braille Independent Review		Assessment
Test Booklets: Enlarged Print Set-Up		Prog/Gr/Cont
Test Booklets: Enlarged Print Printing		Page
Test Booklets: Braille Set-Up		Prog/Gr/Cont
Test Booklets: Braille Printing		Page
Packing, Distribution, and Receipt of Testing Materials	1.1.11.G	
Packing and Distribution		Assessment
Pick-up Arrangements		Assessment
Receiving and Reporting of Test Materials		Assessment
Scanning Barcodes of Returned Test Booklets and Inventory		Assessment
Secure Materials Shipments		Assessment
Scanning, Scoring, Storage and Disposal		
Scanning Test Answer 3-8, 11 Answer Doc.- multiple sheet Documents		Graded Test
Scanning Test Answer 4,5,7,8 and 11 Single sheet AnswerDocuments		Graded Test
Scan Security Compliance Forms		Assessment
Storage of Electronic Images of Answer Documents and Reports (TIFF or PDF)		Annual

Image Hosting and Transfer		Assessment	1
PDF Hard Drive Encrypted and Shipped to State		Assessment	1
Storage of Used Answer Documents (minimum of 2 yrs per cycle)		Annual	1
Disposal of Test Booklets and all Unused Test Materials		Annual	1
Erasure Analysis		Assessment	1
Disposal of Used Answer Documents		Annual	1
Testing Materials	1.1.11		
Review and Validate Test Maps		Assessment	
Administration Manual, Guides and/or Handbooks Setup		Assessment	1
Test Booklets, Reader Scripts, Classroom Activity Materials and Other Similar Booklets Setup		Document	200
Answer Document Set-up - Multiple Sheet Document (grade 3)		Document	1
Answer Document Set-up - Single Sheet Document		Document	10
Emergency Form Handout		Assessment	1
Class Group Headers		Assessment	
School Grade Headers		Assessment	
Pre-Identification of Students		Assessment	
Training Live Videos / Webinars for Test Administrators (including training materials) 2 per Cycle		Assessment	2
Training Materials for Test Administrators		Document	-
Administration Manual, Guides and/or Handbooks Printing		Pages	4,000,000
Test Booklets, Reader Scripts, Classroom Activity Materials and Other Similar Booklets Printing		Pages	108,000,000
Answer Document Printing- Multiple Sheet (Scannable) Pre-ID'd		Pages	18,333,333
Answer Document Printing- Multiple Sheet (Scannable)		Pages	1,500,000
Answer Document Printing- Single Sheet (Scannable) Pre-ID'd		Pages	6,666,667
Answer Document Printing- Single Sheet (Scannable)		Pages	
Pre-Identification of Answer Documents			
Glossaries		Pages	720,000
Student Identification labels (pre-printed)		Each	600,000
Spray on Pre ID Barcode Only-Answer Document Booklet (grade 3-8, 11)		Each	1,680,000
Student Identification labels (blank)		Each	800,000
MI-Access	1.1.7		
Accommodation Materials	1.1.11.C		
Audio Master creation		Master	20
Video Master Creation for English Versions		Master	-
Video Master for Spanish Versions (English Versions must be completed first)		Master	
Video Master for Arabic Versions (English Versions must be completed first)		Master	

Compact Disk Duplication	Each	14,000
DVD Duplication	Each	
Braille Independent Review	Assessment	1
Test Booklets: Enlarged Print Set-Up	Prog/Gr/Cont	20
Test Booklets: Enlarged Print Printing	Page	40,000
Test Booklets: Braille Set-Up	Prog/Gr/Cont	20
Test Booklets: Braille Printing	Page	3,500
Mathematics Rulers - Enlarged Print/Braille	Each	400
Packing, Distribution, and Receipt of Testing Materials 1.1.11.G		
Packing and Distribution	Assessment	1
Pick-up Arrangements	Assessment	1
Receiving and Reporting of Test Materials	Assessment	1
Scanning Barcodes of Returned Test Booklets and Inventory	Assessment	1
Secure Materials Shipments	Assessment	1
Scanning, Scoring, Storage and Disposal		
Scanning Test Answer Documents (Includes Scoring Multiple Choice Responses)	Graded Test	36,040
Scanning and Data Correction UAT	Assessment	1
Scan Security Compliance Forms	Assessment	
Storage of Electronic Images of Answer Documents and Reports (TIFF or PDF)	Annual	1
Image Hosting and Transfer	Assessment	1
PDF Hard Drive Encrypted and Shipped to State	Assessment	1
Storage of Used Answer Documents (minimum of 2 yrs per cycle)	Annual	1
Disposal of Test Booklets and all Unused Test Materials	Annual	1
Erasure Analysis	Assessment	1
Disposal of Used Answer Documents	Annual	1
Testing Materials 1.1.11.C		
Review and Validate Test Maps	Assessment	-
Administration Manual, Guides and/or Handbooks Setup	Assessment	1
Test Booklets, P/SI Scoring Sheets, Classroom Activity Materials and Other Similar Booklets Setup	Document	75
Answer Document Set-up - Single Sheet Document	Document	20
Math Rulers	Each	5,000
Picture Cards (MDE anticipates that this quantity would not significantly reduce as online participation increases)	Page	3,200,000
Emergency Form Handout	Assessment	
Class Group Headers	Assessment	
School Grade Headers	Assessment	
Pre-Identification of Students	Assessment	
Training Live Videos / Webinars for Test Administrators (including training materials) 2 per Cycle	Test Cycle	
Training Materials for Test Administrators	Document	

Administration Manual, Guides and/or Handbooks Printing	Page	1,220,000
Test Booklets, Reader Scripts and Other Similar Booklets Printing	Page	6,350,000
Answer Document Printing- Multiple Sheet (Scannable) Pre-ID'd	Page	359,043
Answer Document Printing- Multiple Sheet (Scannable)	Page	119,681
Answer Document Printing- Single Sheet (Scannable) Pre-ID'd	Page	526,596
Answer Document Printing- Single Sheet (Scannable)	Page	119,681
Pre-Identification of Answer Documents		
Student Identification labels (pre-printed)	Each	50,000
Student Identification labels (blank)	Each	15,000

Exhibit D

General Security Requirements
On award of the Contract, the Contractor must comply with State and federal statutory and regulatory requirements, and rules; National Institute of Standards and Technology (NIST) publications; Control Objectives for Information and Related Technology (COBIT); all other industry specific standards; national security best practices and all requirements herein.
The Contractor must perform annual testing of all security control requirements to determine they are working as intended. Annual certification must be provided in writing to the CCI or designee in the form of a Service Organization Controls (SOC) 2, Type II review or similar audit report upon award.

A. Governing Security Standards and Publications
The State of Michigan information is a valuable asset that must be protected from unauthorized disclosure, modification, use, or destruction. Prudent steps must be taken to ensure that its integrity, confidentiality, and availability are not compromised.
The Contactor must collect, process, store, and transfer State personal, confidential, or sensitive data in accordance with the Contract, State of Michigan policies, and the laws of the State of Michigan and the United States, including, but is not limited to the following:
The Michigan Identity Theft Protection Act, MCL 445.61 et seq;
The Michigan Social Security Number Privacy Act, MCL 445.82 et seq.
Family Educational Rights and Privacy Act (FERPA)

State of Michigan Policies
The Contractor must comply with the State of Michigan information technology standards
http://www.michigan.gov/dmb/0,1607,7-150-56355-107739--,00.html.

B. Security Risk Assessment
The Contractor must conduct assessments of risks and identify the damage that could result from unauthorized access, use, disclosure, disruption, modification, or destruction of information and information systems that support the operations and assets of the State. Security controls should be implemented based on the potential risks. The Contractor must ensure that reassessments occur whenever there are significant modifications to the information system and that risk assessment information is updated.

C. System Security Plan
The Contractor must develop and implement a security plan that provides an overview of the security requirements for the information system. If a security plan does not exist, the Contractor must provide a description of the security controls planned for meeting those requirements. The security plan must be reviewed periodically and revised to address system/organizational changes or problems.

D. Network Security
The Contractor is responsible for the security of and access to State data, consistent with legislative or administrative restrictions. Unsecured operating practices, which expose other connected networks to malicious security violations, are not acceptable. The Contractor must coordinate with DTMB to enter the proper pointers into the State of Michigan infrastructure.

E. Data Security
The Contractor has the responsibility to protect the confidentiality, integrity, and availability of State of Michigan data that is generated, accessed, modified, transmitted, stored, disposed, or used by the system, irrespective of the medium on which the data resides and regardless of format (such as in electronic, paper or other physical form).
The Contractor must:
1. Process the personal data in accordance with the personal data protection laws of the State of Michigan and the United States.

2. Have in place appropriate technical and organizational internal and security controls to protect the personal data against accidental or unlawful destruction or accidental loss, alteration, unauthorized disclosure or access, and which provide a level of security appropriate to the risk represented by the processing and the nature of the data to be protected. Technical and organizational security controls must be implemented that are appropriate to the risks, such as against accidental or unlawful destruction or accidental loss, alteration, unauthorized disclosure or access, presented by the processing.
3. Provide secure and acceptable methods of transmitting personal, confidential or sensitive information over telecommunication devices such as data encryption (128 bit minimum), Secure Socket Layer (SSL), dedicated leased line or Virtual Private Network (VPN).
4. Supply the State with information associated with security audits performed in the last three years upon award.
5. Have in place procedures so that any third party it authorizes to have access to the personal data, including processors, will respect and maintain the confidentiality, integrity, and availability of the data upon award.
6. Process the personal, confidential, and sensitive data only for purposes described in the Contract.
7. Identify to the State a contact point within its organization authorized to respond to enquiries concerning processing of the personal, confidential or sensitive data, and will cooperate in good faith with the Department.
8. Not disclose or transfer the personal, confidential, or sensitive data to a third party unless it is approved under this Contract.
9. Not use data transferred by the State as a result of this Contract for marketing purposes.

F. Media Protection
The Contractor must implement measures to provide physical and environmental protection and accountability for tapes, diskettes, printouts, and other media containing State personal, confidential, and sensitive information to prevent the loss of confidentiality, integrity, or availability of information including data or software, when stored outside the system. This can include storage of information before it is input to the system and after it is output.

The Contractor must ensure that only authorized users have access to information in printed form or on digital media removed from the information system, physically control and securely store information media, both paper and digital, restrict the pickup, receipt, transfer, and delivery of such media to authorized personnel.

G. Media Destruction and Disposal
The Contractor must sanitize or destroy information system digital media containing personal, confidential, or sensitive information before its disposal or release for reuse to prevent unauthorized individuals from gaining access to and using information contained on the media.

Personal, confidential, or sensitive information must be destroyed by burning, mulching, pulverizing, or shredding. If shredded, strips should not be more than 5/16-inch, microfilm should be shredded to affect a 1/35-inch by 3/8-inch strip, and pulping should reduce material to particles of one inch or smaller.

Disk or tape media must be destroyed by overwriting all data tracks a minimum of three times or running a magnetic strip over and under entire area of disk at least three times. If the CD, DVD, or tape cannot be overwritten it must be destroyed in an obvious manner to prevent use in any disk drive unit and discarded. Hand tearing, recycling, or burying information in a landfill are unacceptable methods of disposal. Electronic data residing on any computer systems must be purged based on retention periods required by the State.

H. Access Control
The Contractor must limit information system access to authorized users, processes acting on behalf of authorized users, or devices (including other information systems) and to the types of transactions and functions that authorized users are permitted to exercise. Access must be immediately removed when a staff changes job duties or leaves the employment.

Authentication Process

Authentication is the process of verifying the identity of a user. Authentication is performed by having the user enter a user name and password in order to access the system.

To help protect information from unauthorized access or disclosure, users must be identified and authenticated per the table below prior to accessing confidential or sensitive information, initiating transactions, or activating services.

Publicly available information such as the mother's maiden name, birth date, and address as the sole authenticator is not a secure means of authentication and should not be used.

Automatic user logons are prohibited. Device-to-device logons must be secured (preferably using client certificates or password via tunneled session). For certain implementations, source restrictions (sign-on can occur only from a specific device) provide a compensating control, in addition to the ID and password.

Authentication information (e.g., a password or PIN) must never be disclosed to another user or shared among users.

The authentication process is limited to three unsuccessful attempts and must be reinstated by the authorized personnel (preferably the System security Administrator). User accounts should be systematically disabled after 90 days of inactivity and must be deleted after one year of inactivity.

Password Requirements

The purpose of a password is to authenticate a user accessing the system and restrict use of a userID only to the assigned user. To the extent that the functionality is supported within the technology or product, the controls listed must be implemented.

These following controls or content rules apply at any point where a new password value is to be chosen or assigned. These rules must be enforced automatically as part of a new password content checking process:

Password Property	Value
Minimum Length	Eight characters with a combination of alpha, numeric, and special characters
Composition	At least two numeric characters (0 through 9), neither of which may be at the beginning or the end of the password A combination of two upper (A through Z) and lower case (a through z) letters Special characters (!, @, #, $, %, ^, &, *, (,), +, =, /, <, >, ?,., :, ;, \) UserID in password is not allowed
Expiration Requirement (Maximum Password Age):	30 days
Revocation	Passwords should be revoked after three failed attempts (the State strongly supports password revocation after three failed attempts if system allows). Passwords should be systematically disabled after 90 days of inactivity to reduce the risk of compromise through guessing, password cracking or other attack and penetration methods.
Temporary passwords	Must be randomly chosen or generated System must force the user to change the temporary password at initial login

Change process	System must force user to: Confirm their current password/PIN, Reenter current password/PIN Create a new password/PIN Reenter new password/PIN System must prevent users from being able to consecutively change their password value in a single day (The goal is to prevent recycling through password history records to reuse an earlier-used password value)
Login process	Password/PIN must not appear on the screen during the login process (The exception to this is during selection of a machine-generated password).
Encryption of passwords/PINs	Passwords must be stored and transmitted with a minimum of 128-bit encryption. Passwords must be masked when entered on any screen
Compromise of password/PIN	Must be changed immediately
Forgotten password/PIN	Must be reset by authorized person (system Security Administrator)
Current user password/PIN	Must not be maintained or displayed in any readable format on the system
Audit logs	Maintain a record of when a password was changed, deleted, or revoked. The audit trail shall capture all unsuccessful login and authorization attempts for a one year period.
Password history	Keep a password history and perform a check against the history to verify the password has not been used for a minimum of one year
Privileged account access (e.g. supervisor or root)	Security administrator must change the password for that account immediately when user changes responsibilities

	State of Michigan Department of Technology, Management & Budget	TECHNICAL STANDARD
Subject:	Electronic Data Encryption (former Ad Guide 1315.10)	**Standard Number**
Authoritative Policy:	1340 IT Information Security Policy	1340.00.07
Associated Procedures:	n/a	
Distribution:	Statewide	

Purpose: Encryption is used to provide a high level of security to the state's electronic data by translating data into secret code. This policy identifies the requirements for encryption methods when data is transmitted in-flight or when data is stored in permanent or removable electronic media.

Contact/Owner: DTMB CyberSecurity and Infrastructure Protection (CIP)
Michigan Cyber Security (MCS)

Scope: Executive Branch Departments, Agencies, Boards or Commissions, private partners, and contractors. Any electronic device that has been authorized to access state of Michigan (SOM) sensitive information must protect the confidentiality of such data. In order to maintain a high level of security of the state's information technology managed resources and data this standard defines a requirement to use a method of encryption both when data is in transit across internal or external networks and when stored in permanent or removable media.

Standard: Encryption must be utilized when moving or storing protected information including citizen privacy information or personally identifying information (PII) such as social security numbers, regulated health information, financial data including credit card numbers or Federal Tax Information (FTI). Through encryption methods the objective is to minimize the likelihood that sensitive or confidential SOM information is inadvertently disclosed or accessed during the transmission or storage of sensitive and/or confidential data.

1. Asymmetric Keys:
   - Keys: RSA or DSA
   - Size: 2048bit through 4096bit
2. Symmetric Keys:
   - Keys: AES or TDEA (3DES)
   - Size: Minimum 128bit, 192bit or 256bit for highly sensitive data
3. Hash Algorithm
   - SHA-1 through SHA-512

Issued: 4/28/2012
Revised: 10/30/2013
Reviewed:
Next Review Date: (1 yr) 10/30/2014

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	State of Michigan **Department of Technology,** **Management & Budget**	**TECHNICAL** **STANDARD**

4. SOM requirements for data storage encryption:
   - Whenever supported by the underlying product suites, Transparent Data Encryption (TDE) should be used. TDE is based on a dual encryption method that uses a secondary encryption key that is stored in a file external to the encrypted database file.
5. All SOM resources must utilize centrally managed digital certificates.
6. DTMB reviews this standard yearly.
7. Passwords which are used to generate keys, must be unique during initial implementation or regenerating new keys when they expire or are revoked.

Any employee found to have violated this standard might be subject to disciplinary action, up to and including termination of employment and/or criminal prosecution where the act constitutes a violation of law.

Any 3rd party found to have violated this standard might be subject to action, up to and including criminal prosecution where the act constitutes a violation of law. A breach of contract and fiduciary liability may also apply.

Exceptions: Exceptions to this standard must follow the 1305.00.02 Technical Policy and Product Exception Standard.

Approving Authority:

John Nixon, CPA   Revised: 10/30/2013
Director

State of Michigan
Administrative Guide to State Government

POLICY 1340.00 Information Technology Information Security
Issued: April 12, 2007
Revised: March 21, 2012

SUBJECT:	Policy for Information Technology (IT) Information Security.
APPLICATION:	This policy is intended for statewide compliance and applies to all Executive Branch Departments, Agencies, Trusted Partners, Boards or Commissions using state of Michigan (SOM) information networks and IT resources.
PURPOSE:	This policy establishes the SOM executive management strategic view of how information security shall be implemented to protect the SOM information from unauthorized access, use, disclosure, modification, destruction, or denial and to ensure confidentiality, integrity and availability of SOM information.
CONTACT AGENCY:	Department of Technology, Management and Budget (DTMB) Michigan Cyber Security
TELEPHONE:	517-241-4090
FAX:	517-241-2013
SUMMARY:	All SOM employees, trusted partners, or any entity authorized to access the SOM information is obligated to protect the confidentiality, integrity and availability of the information as set forth in this and all SOM enterprise IT policies.

Information is not limited to data contained in computer systems but is inclusive regardless of where it resides within the agency, what form it takes, (*i.e.,* electronic, printed, etc.), what technology was used to handle it, or what purpose(s) it serves. This policy is based on three basic components of information Security for the purpose of this policy:

- **Confidentiality** – Limiting information access and disclosure to authorized users – "the right people" – and preventing access by or disclosure to unauthorized users – "the wrong people." Confidentiality is defined as protecting information from unauthorized disclosure or interception and assuring that information is shared only among authorized persons and organizations.
- **Integrity** – The trustworthiness of information resources. It includes the concept of "data integrity" – namely, that data have not been changed inappropriately, whether by accident or deliberate activity. It also includes the need to verify that the person or entity has entered the right information – that is, that the information reflects the actual circumstances and that under the same circumstances would generate identical data. Integrity is defined as guarding against improper information modification and/or destruction, ensuring information has not been altered by unauthorized people and the assurance that the information can be relied upon to be sufficiently accurate for its purpose.
- **Availability** – The availability of information resources. An information system that is not available when you need it is at least as bad as none at all. It may be much worse, depending on how reliant the organization has become on a functioning computer and communications infrastructure. Availability is defined as ensuring timely and reliable

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access to and use of information and assuring that the systems responsible for delivering, storing and processing information are accessible when needed, by those who need them.

Based on these three components of information security, any data that is originated, entered, processed, transmitted, stored or disposed of on behalf of the SOM is considered to be SOM information.

POLICY:

- Agency information is considered a SOM asset and must be appropriately evaluated and protected against all forms of unauthorized access, use, disclosure, modification, destruction, or denial.
- Each agency Director is required to determine the proper levels of protection for their agency information and to implement the necessary safeguards.

Agency Director:

- As a Data Owner, the Director within their area of responsibility shall ensure:
    - Due diligence of confidentiality, integrity and availability of data.
    - Data management in compliance with Federal and state laws and regulations, and SOM policies.
    - Information security controls are implemented to protect the SOM information and that these controls are sufficient to ensure the confidentiality, integrity, availability of SOM information.
    - Information security controls are applied in a manner consistent with the value of the information.
    - Data business owner identification. Although it is not recommended to have multiple owners for the same data, this sometimes occurs. Where there is more than one owner, Data Owners must designate a Business Owner who will have authority to make decisions on behalf of all the owners of this data.
    - SOM agency information is identified and classified based on sensitivity, criticality and risk in compliance to Federal and state laws and regulations, includes a review at least once a year of the on-going need to continue protection, updates when the environment changes.
    - A system is established to identify baseline security controls to protect SOM information. Once it is identified and classified, ensure it is exposed only to those who have a need to know the information and a duty to protect it.
    - SOM agency information is safeguarded with the proper controls in accordance with its classification label.
    - Data, which is shared or transferred between agencies, is protected by the receiving agency with at least the same level of security used by the sending agency. The receiving agency assumes the responsibility of data owner for such data when it is transferred.
    - Anyone requiring access to confidential or restricted information that is owned by another agency must obtain permission from the Business Owner.
    - Controls are established to provide SOM oversight of trusted partners who handle SOM information on behalf of the SOM.
    - SOM agency information is disposed of and sanitized in compliance with SOM policies.
    - A formal internal process is established for reporting and responding to security breaches/incidents where there is reasonable belief that an unauthorized person may have acquired personal identifying information.

- o A system is established to review technical controls and recommendations identified by the SOM data custodians.
- o Internal agency security policies and procedures are implemented, maintained and enforced that compliment and comply with this policy.
- o All SOM employees and trusted partners handle information for which they are responsible in compliance with this policy and all SOM IT policies.
- o SOM employees and trusted partners are trained to ensure they are aware of their role in protecting SOM information and data as set forth in this policy.
- o Employees are advised of the necessity of complying with DTMB policies and laws pertaining to the protection of SOM information, because non-compliance may leave the state liable and employees vulnerable to prosecution and civil suite, as well as disciplinary action.

DTMB Director:

- • As a Data Custodian, the Director shall ensure:
    - o Agencies are advised as to the best operational and technical controls necessary to protect their data in accordance with its classification label.
    - o Agency-prescribed security controls and safeguards are implemented and monitored for compliance.

Terms and Definitions:

Agency	The principal department of state government as created by Executive Organization Act, P.A. 380 of 1965.
Availability	Ensuring timely and reliable access to and use of information and assuring that the systems responsible for delivering, storing and processing information are accessible when needed, by those who need them.
Business Owner	Responsible for administration of systems is usually the owner of the primary business functions served by the application, the application's largest stakeholder.
Confidentiality	Protecting information from unauthorized disclosure or interception and assuring that information is shared only among authorized persons and organizations.
Data Custodian	An individual or organization that has responsibility delegated by a data owner for maintenance and technological management of data and systems.
Data/Information	SOM agency information. No distinctions between the words data and information are made for purposes of this policy.
Data Owner	An individual or organization – usually a member of senior management of an organization – who is ultimately responsible for ensuring the protection and use of data.
Due Care	Shows that an organization has taken responsibility for the activities that take place within the organization and has taken the necessary steps to help protect the SOM, its resources and employees from possible risk.
Due Diligence	The practice of implementing controls and safeguards that make sure the protection mechanisms are continually maintained and operational.

Information Technology (IT) Resources	Includes, but is not limited to: computers, servers, storage peripherals, telecommunications equipment, network equipment and wiring, network-attached printers and fax machines.
Integrity	Guarding against improper information modification and/or destruction, ensuring information has not been altered by unauthorized people and the assurance that the information can be relied upon to be sufficiently accurate for its purpose.
Technical Policy(ies)	High-level executive management statements used to set directions in an organization that documents information values, protection responsibilities and management commitment for protecting its computing and information assets. Policies are strategic in nature.
Technical Standards	Published documents that contain technical specifications or other precise criteria designed to be used consistently as a rule, guideline or definition. They are also a collage of best practices and business cases specific to address an organization's technological needs. Standards are tactical in nature and derive their authority from a policy.
Technical Procedures	A series of prescribed steps followed in a definite order which ensure adherence to the standards and compliance as set forth in the Policy to which the Procedure applies. Procedures are operational in nature and derive their guidance from a standard and authority from a policy.
Trusted Partner/ Business Partner	A person (i.e., vendor, contractor, 3rd party, etc.) or entity that has contracted with the SOM to perform a certain service or provide a certain product in exchange for valuable consideration, monetary, or goods and services.

Authority:

- This policy obtains its authority from:
    o Administrative Guide Policy 1305 Enterprise Information Technology.
    o The Administrative Guide to State Government.
    o DTMB IT Technical Policies, Standards and Procedures, which can be found on the DTMB Intranet.

Enforcement:

- All enforcement for this policy shall be in compliance with the standards and procedures of Administrative Guide Policy 1305 Enterprise Information Technology.

Developing Standards and Procedures for this Policy:

- All requirements for developing standards and procedures for this policy shall be in compliance with Administrative Guide Policy 1305 Enterprise Information Technology.

Exceptions:

- All exception requests to this policy must be processed in compliance with Administrative Guide Policy 1305 Enterprise Information Technology.

Effective Date:

- This policy will be effective upon signature of the Administrative Guide approval memo by the DTMB Director.

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	State of Michigan Department of Technology, Management & Budget	TECHNICAL STANDARD
Subject:	Storage of Sensitive Information on Mobile Devices and Portable Media (former Ad Guide 1315.00)	**Standard Number**
Authoritative Policy:	1340 IT Information Security Policy	1340.00.06
Procedure Number:	TBD	
Distribution:	Statewide	

Purpose: To establish a statewide standard for the protection of State of Michigan (SOM) sensitive information and data stored on mobile devices and portable media.

The public rightly assumes and should be assured that the data in the possession of Michigan state government is secure and protected from unauthorized disclosure or misuse.

Any user who has been authorized to access SOM sensitive information has an obligation to safeguard and protect the confidentiality of such data. The objective of this standard is to minimize the likelihood that sensitive or confidential SOM information is inadvertently disclosed.

Contact/Owner: DTMB CyberSecurity and Infrastructure Protection (CIP)

Scope: Executive Branch Departments and Sub-units, private partners and contractors.

Standard: Storage of sensitive information on mobile devices or portable media is permitted only if all of the following requirements have been satisfied:

1. Use is restricted to individuals whose job duties require it.
2. Granted for a finite duration as needed to fulfill the specific functions required to perform a specific job.
3. Approval has been obtained by both the employee's department head (or their designee) and the system/data owner. For non-SOM employees, "department" is defined as the SOM Agency contracting with the 3rd party.
4. Sensitive data has been encrypted. Encryption must comply with the DTMB Standard 1340.00.07 as published. **Unencrypted storage of sensitive information on mobile devices and portable media is prohibited.** Please note that SOM Administrative Guide Procedure 1350.90 for data sanitation and media disposal will need to be followed.

ANY instance of SOM sensitive information (including that stored on a mobile device or portable media – encrypted or unencrypted) being lost, stolen, or where there is reasonable belief that an unauthorized person may have acquired the data, **must be reported immediately** to your appropriate Agency management and the Department of Technology, Management and Budget's Customer Service Center at (517) 241-9700 or (800) 968-2644.

Any employee found to have violated this standard may be subject to disciplinary action, up to and including termination of employment and/or criminal prosecution where the act constitutes a violation of law.

	State of Michigan Department of Technology, Management & Budget	TECHNICAL STANDARD

Any third party found to have violated this standard may be subject to action, up to and including criminal prosecution where the act constitutes a violation of law. A breach of contract and fiduciary liability may also apply.

Definitions:

Data/System Owner
Senior management of the Agency that is ultimately responsible of ensuring the protection and appropriate use of their business' data.

Encryption
The translation of data into a secret code. Encryption is the most effective way to achieve data security. To read an encrypted file, you must have access to a secret key that enables you to decrypt it.

Mobile Devices
Any mobile device (State-owned or privately-owned) capable of storing data. Examples include, but are not limited to: laptops, tablet PCs, Blackberrys, cell phones, PDAs, IPods, and players.

For the purpose of this standard, all non-state-owned computing or data storage equipment (*e.g.*, PC, server, Network Attached Storage (NAS), and Storage Area Network (SAN)) are considered mobile devices.

Portable Media
Any portable media (State-owned or privately-owned) capable of storing data. Examples include, but are not limited to: external hard drives, USB thumb drives, flash drives, memory sticks and cards, CDs, DVDs, and floppy disks.

Sensitive Information and Data
Those data elements that are governed or restricted in some manner by a federal or state statue, rule, policy or requirement. At a minimum, sensitive information that all agencies must encrypt includes (but is not limited to):
1. Name and social security number pair.
2. Name and credit card number pair.
3. Personal health records as identified by HIPAA.

In addition to above, agencies may assign data classifications to their data elements. Encryption would be required for all Agency-specific information labeled sensitive.

Approving authority:

John Nixon, CPA (signed by Director Nixon)   Date: (revision 4/28/12)

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State of Michigan
Administrative Guide to State Government

POLICY 1345 Information Technology Network and Infrastructure

Issued: June 4, 2009
Revised: October 2, 2014

SUBJECT: Policy for Information Technology (IT) Network Infrastructure.

APPLICATION: This policy is intended for statewide compliance and applies to all Executive Branch Departments, Agencies, Trusted Partners, Boards or Commissions using state of Michigan (SOM) information networks and IT resources.

PURPOSE: This policy establishes the responsibilities of Agency Directors, the Department of Technology, Management and Budget (DTMB) and the DTMB Director as they apply to the utilization of SOM information networks and IT resources.

CONTACT AGENCY: Department of Technology, Management and Budget (DTMB)
Customer Service, Deputy Director

TELEPHONE: 517-373-6760

FAX: 517-373-7268

SUMMARY: The SOM network encompasses all aspects of wired and wireless components associated with the network and any hardware and any data it carries.

The state data, voice and video communication network is intended for conducting state business and exchanging information among state agencies, state employees, citizens and other stakeholders. The state data, voice and video communication network was designed to be compatible with, and have a secure, controlled connection to, our business partners. While this design offers significant new opportunities for customer and business partner interactions, it also brings the need to ensure network security.

This policy addresses the following needs:

- The need to align SOM technical infrastructure to support agency business processes, while meeting the SOM mission and strategic goals.
- The need to protect SOM's sensitive information on an ever-evolving network.
- The need to enable information sharing across traditional barriers. This enhances Michigan's ability to deliver effective and timely services, promotes interoperability, supports departments and agencies in their efforts to improve government functions, and promotes migration to enterprise solutions with reduced complexity and support costs.
- The need to provide enterprise solutions designed to provide information, tools and high-level reference architectures on how to protect data, while building a data-defensible technical architecture.

POLICY:

- It is solely the responsibility of DTMB to design and implement a technical infrastructure necessary to deliver IT services aligned with agency business requirements.

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Agency Director:

- As a SOM Network and IT Customer, the Director within their area of responsibility shall ensure:
  - Financial support is provided by the agency for the research and implementation of strategic technological solutions.
  - No IT infrastructure is purchased or developed by agencies.
  - All purchases of products for IT needs are done so in compliance with Administrative Guide Policy 1365 IT Product Standards Adoption, Acquisition, Development and Implementation.
  - Internal agency policies and procedures are implemented, maintained and enforced that complement and comply with this policy.
  - Implementing internal policies that are more stringent than those developed by DTMB is done so in conjunction with DTMB.
  - Compliance with this policy.

DTMB Director:

- As a SOM Network and IT Owner, the Director shall ensure that a mechanism is either implemented or in place to:
  - Provide a secure network infrastructure for conducting state business and exchanging information among state agencies, state employees, citizens and business partners.
  - Provide support for design, development, implementation and maintenance of server-based infrastructure related to all agency applications.
  - Support application infrastructure for central and remote locations.
  - Establish enterprise-level storage backup and enterprise database management services.
  - Incorporate enterprise architectures solutions into an enterprise customer support help desk to provide a single point of contact for the initiation of service calls and services.
  - Ensure the alignment of technology choices with agency business needs and information technology enterprise strategic planning.
  - Maintain a current and comprehensive knowledge base of IT developments, trends and best practices. This mechanism should provide the Chief Information Officer (CIO) with insights on how new technologies can be most effectively introduced into the current SOM environment.
  - Ensure installation, configuration, inventory and monitoring of established solutions.

Terms and Definitions:

Agency	The principal department of state government as created by Executive Organization Act, P.A. 380 of 1965.
Business Partner/ Trusted Partner	A person (i.e., vendor, contractor, 3rd party, etc.) or entity that has contracted with the SOM to perform a certain service or provide a certain product in exchange for valuable consideration, monetary, or goods and services.
Data Custodian	An individual or organization delegated by a data owner that has responsibility for maintenance and technological management of data and systems.
Data Owner	An individual or organization – usually a member of senior management of an organization – who is ultimately responsible for ensuring the protection and use of data.

Information Technology (IT) Resources	Includes, but is not limited to: computers, servers, storage peripherals, telecommunications equipment, network equipment and wiring, network-attached printers and fax machines.
Integrity	Guarding against improper information modification and/or destruction, ensuring information has not been altered by unauthorized people and the assurance that the information can be relied upon to be sufficiently accurate for its purpose.
SOM Network and IT Customer	Same as Data Owner.
SOM Network and IT Owner	Same as Data Custodian.

Authority:

- This policy obtains its authority from:
  - Administrative Guide Policy 1305 Enterprise Information Technology.
  - The Administrative Guide to State Government.
  - DTMB IT Technical Policies, Standards and Procedures, which can be found on the DTMB Intranet.

Enforcement:

- All enforcement for this policy shall be in compliance with the standards and procedures of Administrative Guide Policy 1305 Enterprise Information Technology.

Developing Standards and Procedures for this Policy:

- All requirements for developing standards and procedures for this policy shall be in compliance with Administrative Guide Policy 1305 Enterprise Information Technology.

Exceptions:

- All exception requests to this policy must be processed in compliance with Administrative Guide Policy 1305 Enterprise Information Technology.

Effective Date:

- This policy will be effective upon signature of the Administrative Guide approval memo by the DTMB Director.

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Appendix B

	Duration	Start	Finish	Resources
terim and Summative Assessments, Fall 2015 and Spring 2016	**424 d**	**Mon 3/16/15**	**Thu 11/10/16**	
	0 d	Mon 3/16/15	Mon 3/16/15	
	4 d	**Fri 3/27/15**	**Thu 4/2/15**	
to MDE	0 d	Fri 3/27/15	Fri 3/27/15	MI
	2 d	Mon 3/30/15	Tue 3/31/15	MDE
	1 d	Wed 4/1/15	Wed 4/1/15	MI
	1 d	Thu 4/2/15	Thu 4/2/15	MDE
ent	**5 d**	**Mon 4/13/15**	**Fri 4/17/15**	
t plan and risk register	2 d	Mon 4/13/15	Tue 4/14/15	MI
	1 d	Wed 4/15/15	Wed 4/15/15	MDE
	1 d	Thu 4/16/15	Thu 4/16/15	MI
	1 d	Fri 4/17/15	Fri 4/17/15	MDE
	25 d	**Mon 3/16/15**	**Fri 4/17/15**	
quirements	1 d	Mon 3/16/15	Mon 3/16/15	MI
	1 d	Mon 3/16/15	Mon 3/16/15	MI
nda	5 d	Mon 3/23/15	Fri 3/27/15	MI, MDE
edule(s)	5 d	Mon 3/23/15	Fri 3/27/15	MI, MDE
g	2 d	Mon 4/13/15	Tue 4/14/15	MI, MDE
neeting minutes	3 d	Wed 4/15/15	Fri 4/17/15	MI
s [All Assessments]	**253 d**	**Tue 3/17/15**	**Mon 3/14/16**	
lanagement Site (SharePoint)	**8 d**	**Tue 3/17/15**	**Thu 3/26/15**	
electronic document management requirements	**3 d**	**Tue 3/17/15**	**Thu 3/19/15**	
e requirements	2 d	Tue 3/17/15	Wed 3/18/15	MI, MDE
	1 d	Thu 3/19/15	Thu 3/19/15	MDE
raries and folder structures	3 d	Fri 3/20/15	Tue 3/24/15	MI
	1 d	Wed 3/25/15	Wed 3/25/15	MI
entials	1 d	Thu 3/26/15	Thu 3/26/15	MI
	24 d	**Wed 4/15/15**	**Mon 5/18/15**	
school readiness requirements	**3 d**	**Wed 4/15/15**	**Fri 4/17/15**	
e requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI, MDE
	1 d	Fri 4/17/15	Fri 4/17/15	MDE
Delivery System testing device, bandwidth, and other technical requirements	1 d	Mon 4/20/15	Mon 4/20/15	MI
ata to build list of schools that are ready to participate	10 d	Tue 4/21/15	Mon 5/4/15	MDE
onitor/revise Secure Site Pre-ID data based on school readiness and intent	10 d	Tue 5/5/15	Mon 5/18/15	MDE
ystem	**68 d**	**Wed 4/15/15**	**Tue 7/21/15**	
Online Test Delivery System configuration requirements	**3 d**	**Wed 4/15/15**	**Fri 4/17/15**	
e requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI, MDE
	1 d	Fri 4/17/15	Fri 4/17/15	MDE
student level accessibility requirements	**3 d**	**Wed 4/15/15**	**Fri 4/17/15**	
e requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI, MDE
	1 d	Fri 4/17/15	Fri 4/17/15	MDE

45	**Gather and document item import and rendering requirements**	**4 d**	**Wed 4/15/15**	**Mon 4/20/15**	
46	Submit, review and revise requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI, MDE
47	MDE sign-off	1 d	Fri 4/17/15	Fri 4/17/15	MDE
48	**Gather and document item import and rendering UAT requirements**	**3 d**	**Thu 4/16/15**	**Mon 4/20/15**	
49	Submit, review and revise requirements	2 d	Thu 4/16/15	Fri 4/17/15	MI, MDE

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ID	Task Name	Duration	Start	Finish	Resources
50	MDE sign-off	1 d	Mon 4/20/15	Mon 4/20/15	MDE
51	**Gather and document Online Test Delivery System Test Session data requirements**	**4 d**	**Wed 4/15/15**	**Mon 4/20/15**	
52	Submit, review and revise requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI, MDE
53	MDE sign-off	1 d	Fri 4/17/15	Fri 4/17/15	MDE
54	**Gather and document Online Test Delivery System Test Session data UAT requirements**	**3 d**	**Thu 4/16/15**	**Mon 4/20/15**	
55	Submit, review and revise requirements	2 d	Thu 4/16/15	Fri 4/17/15	MI,MDE
56	MDE sign-off	1 d	Mon 4/20/15	Mon 4/20/15	MDE
57	**Online Test Delivery System Configuration**	**51 d**	**Mon 4/20/15**	**Tue 6/30/15**	
58	MI configures Online Test Delivery System per MDE specifications	30 d	Mon 4/20/15	Mon 6/1/15	MI
59	MDE review of Online Test Delivery System configuration	10 d	Tue 6/2/15	Mon 6/15/15	MDE
60	MI revision of Online Test Delivery System configuration	10 d	Tue 6/16/15	Mon 6/29/15	MI
61	MDE sign-off on Test Delivery System configuration	1 d	Tue 6/30/15	Tue 6/30/15	MDE
62	**Disaster Recovery Plan**	**17 d**	**Tue 4/21/15**	**Wed 5/13/15**	
63	MI creates draft disaster recovery plan	10 d	Tue 4/21/15	Mon 5/4/15	MI
64	MDE reviews disaster recovery plan	3 d	Tue 5/5/15	Thu 5/7/15	MDE
65	MI revises disaster recovery plan	3 d	Fri 5/8/15	Tue 5/12/15	MI
66	MDE sign-off	1 d	Wed 5/13/15	Wed 5/13/15	MDE
67	**Constructed Response Export UAT**	**14 d**	**Wed 7/1/15**	**Tue 7/21/15**	
68	Generate constructed-response test deck in Online Test Delivery System	10 d	Wed 7/1/15	Wed 7/15/15	MI
69	Export test deck responses from Online Test Delivery System	1 d	Thu 7/16/15	Thu 7/16/15	MI
70	Test import to scoring system for Handscoring	2 d	Fri 7/17/15	Mon 7/20/15	MI
71	Sign-off	1 d	Tue 7/21/15	Tue 7/21/15	MI
72	Test import into AI Scoring system	2 d	Fri 7/17/15	Mon 7/20/15	MI
73	Sign-off	1 d	Tue 7/21/15	Tue 7/21/15	MI
74	**Gather and document security requirements**	**3 d**	**Wed 4/15/15**	**Fri 4/17/15**	
75	Submit, review and revise requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI, MDE
76	MDE sign-off	1 d	Fri 4/17/15	Fri 4/17/15	MDE
77	**Requirements Documentation [Assessment Registration]**	**6 d**	**Wed 4/15/15**	**Wed 4/22/15**	
78	**Gather and document Pre-ID and roster requirements**	**3 d**	**Wed 4/15/15**	**Fri 4/17/15**	
79	Submit, review and revise requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI,MDE
80	MDE sign-off	1 d	Fri 4/17/15	Fri 4/17/15	MDE
81	**Gather and document school/district registration pull requirements**	**5 d**	**Wed 4/15/15**	**Tue 4/21/15**	
82	Submit, review and revise requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI,MDE
83	MDE sign-off	1 d	Fri 4/17/15	Fri 4/17/15	MDE
84	**Develop school/district registration pull QAP**	**3 d**	**Thu 4/16/15**	**Mon 4/20/15**	
85	Submit, review and revise requirements	2 d	Thu 4/16/15	Fri 4/17/15	MI, MDE
86	MDE sign-off	1 d	Mon 4/20/15	Mon 4/20/15	MDE
87	**Gather and document school/district registration pull UAT requirements**	**3 d**	**Fri 4/17/15**	**Tue 4/21/15**	
88	Submit, review and revise requirements	2 d	Fri 4/17/15	Mon 4/20/15	MI,MDE
89	MDE sign-off	1 d	Tue 4/21/15	Tue 4/21/15	MDE
90	**Gather and document student registration and test session pull requirements**	**5 d**	**Wed 4/15/15**	**Tue 4/21/15**	
91	Submit, review and revise requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI, MDE
92	MDE sign-off	1 d	Fri 4/17/15	Fri 4/17/15	MDE
93	**Develop student registration and test session pull QAP**	**3 d**	**Thu 4/16/15**	**Mon 4/20/15**	

94	Submit, review and revise requirements	2 d	Thu 4/16/15	Fri 4/17/15	MI, MDE
95	MDE sign-off	1 d	Mon 4/20/15	Mon 4/20/15	MDE
96	**Gather and document student registration and test session pull UAT requirements**	**3 d**	**Fri 4/17/15**	**Tue 4/21/15**	
97	Submit, review and revise requirements	2 d	Fri 4/17/15	Mon 4/20/15	MI, MDE
98	MDE sign-off	1 d	Tue 4/21/15	Tue 4/21/15	MDE

<div align="center">Page 2</div>

I	Task Name	Duration	Start	Finish	Resources
99	**Gather and document personal needs profile pull requirements**	**5 d**	**Thu 4/16/15**	**Wed 4/22/15**	
100	Submit, review and revise requirements	2 d	Thu 4/16/15	Fri 4/17/15	MI, MDE
101	MDE sign-off	1 d	Mon 4/20/15	Mon 4/20/15	MDE
102	**Develop personal needs profile pull QAP**	**3 d**	**Fri 4/17/15**	**Tue 4/21/15**	
103	Submit, review and revise requirements	2 d	Fri 4/17/15	Mon 4/20/15	MI, MDE
104	MDE sign-off	1 d	Tue 4/21/15	Tue 4/21/15	MDE
105	**Gather and document personal needs profile pull UAT requirements**	**3 d**	**Mon 4/20/15**	**Wed 4/22/15**	
106	Submit, review and revise requirements	2 d	Mon 4/20/15	Tue 4/21/15	MI, MDE
107	MDE sign-off	1 d	Wed 4/22/15	Wed 4/22/15	MDE
108	**Gather and document material order pull requirements**	**5 d**	**Thu 4/16/15**	**Wed 4/22/15**	
109	Submit, review and revise requirements	2 d	Thu 4/16/15	Fri 4/17/15	MI, MDE
110	MDE sign-off	1 d	Mon 4/20/15	Mon 4/20/15	MDE
111	**Develop material order pull QAP**	**3 d**	**Fri 4/17/15**	**Tue 4/21/15**	
112	Submit, review and revise requirements	2 d	Fri 4/17/15	Mon 4/20/15	MI, MDE
113	MDE sign-off	1 d	Tue 4/21/15	Tue 4/21/15	MDE
114	**Gather and document material order UAT requirements**	**3 d**	**Mon 4/20/15**	**Wed 4/22/15**	
115	Submit, review and revise requirements	2 d	Mon 4/20/15	Tue 4/21/15	MI, MDE
116	MDE sign-off	1 d	Wed 4/22/15	Wed 4/22/15	MDE
117	**Single Sign-On**	**70 d**	**Mon 3/23/15**	**Mon 6/29/15**	
118	**Requirements Documentation [Single Sign-On]**	**7 d**	**Mon 3/23/15**	**Tue 3/31/15**	
119	**Gather and document online test delivery system single sign-on requirements**	**4 d**	**Mon 3/23/15**	**Thu 3/26/15**	
120	Submit, review and revise requirements	2 d	Mon 3/23/15	Tue 3/24/15	MI, MDE
121	MDE sign-off	1 d	Wed 3/25/15	Wed 3/25/15	MDE
122	**Develop online test delivery system single sign-on QAP**	**3 d**	**Tue 3/24/15**	**Thu 3/26/15**	
123	Submit, review and revise QAP	2 d	Tue 3/24/15	Wed 3/25/15	MI, MDE
124	MDE sign-off	1 d	Thu 3/26/15	Thu 3/26/15	MDE
125	**Gather and document online reporting single sign-on requirements**	**4 d**	**Mon 3/23/15**	**Thu 3/26/15**	
126	Submit, review and revise requirements	2 d	Mon 3/23/15	Tue 3/24/15	MI, MDE
127	MDE sign-off	1 d	Wed 3/25/15	Wed 3/25/15	MDE
128	**Develop online reporting single sign-on QAP**	**3 d**	**Tue 3/24/15**	**Thu 3/26/15**	
129	Submit, review and revise requirements	2 d	Tue 3/24/15	Wed 3/25/15	MI, MDE
130	MDE sign-off	1 d	Thu 3/26/15	Thu 3/26/15	MDE
131	**Gather and document single sign-on UAT requirements**	**3 d**	**Fri 3/27/15**	**Tue 3/31/15**	
132	Submit, review and revise requirements	2 d	Fri 3/27/15	Mon 3/30/15	MI, MDE
133	MDE sign-off	1 d	Tue 3/31/15	Tue 3/31/15	MDE
134	**Single Sign-on configuration**	**45 d**	**Tue 3/31/15**	**Tue 6/2/15**	
135	MI configures Single Sign-on for online test delivery system	30 d	Tue 3/31/15	Mon 5/11/15	MI
136	MI configures Single Sign-on for reporting system	30 d	Tue 3/31/15	Mon 5/11/15	MI
137	Review and revise single sign-on configuration	15 d	Tue 5/12/15	Tue 6/2/15	MI, MDE
138	**Single Sign-on UAT**	**18 d**	**Wed 6/3/15**	**Fri 6/26/15**	
139	Conduct single sign-on UAT	3 d	Wed 6/3/15	Fri 6/5/15	MDE
140	Single sign-on revisions	10 d	Mon 6/8/15	Fri 6/19/15	MI
141	MDE sign-off	5 d	Mon 6/22/15	Fri 6/26/15	MDE
142	Single sign-on implemented	1 d	Mon 6/29/15	Mon 6/29/15	MI

143	**Requirements Documentation [Testing Certification Process]**	**5 d**	**Mon 2/15/16**	**Fri 2/19/16**	
144	**Gather and document Testing Certification Process requirements**	**5 d**	**Mon 2/15/16**	**Fri 2/19/16**	
145	Submit, review and revise requirements	2 d	Mon 2/15/16	Tue 2/16/16	MI, MDE
146	MDE sign-off	1 d	Wed 2/17/16	Wed 2/17/16	MDE
147	**Gather and document Testing Certification Process QAP**	**3 d**	**Tue 2/16/16**	**Thu 2/18/16**	

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ID	Task Name	Duration	Start	Finish	Resources
148	Submit, review and revise QAP	2 d	Tue 2/16/16	Wed 2/17/16	MI, MDE
149	MDE sign-off	1 d	Thu 2/18/16	Thu 2/18/16	MDE
150	**Gather and document Testing Certification Process UAT requirements**	**3 d**	**Wed 2/17/16**	**Fri 2/19/16**	
151	Submit, review and revise requirements	2 d	Wed 2/17/16	Thu 2/18/16	MI, MDE
152	MDE sign-off	1 d	Fri 2/19/16	Fri 2/19/16	MDE
153	**Gather and document testing staff training requirements**	**3 d**	**Fri 6/5/15**	**Tue 6/9/15**	
154	Submit, review and revise requirements	2 d	Fri 6/5/15	Mon 6/8/15	MI, MDE
155	MDE sign-off	1 d	Tue 6/9/15	Tue 6/9/15	MDE
156	**Technical Support/Call Center**	**227 d**	**Wed 4/22/15**	**Mon 3/14/16**	
157	**Gather and document Call Center requirements**	**4 d**	**Wed 4/22/15**	**Mon 4/27/15**	
158	Submit, review and revise requirements	2 d	Wed 4/22/15	Thu 4/23/15	MI, MDE
159	MDE sign-off	1 d	Fri 4/24/15	Fri 4/24/15	MDE
160	**Gather and document Call Center QAP**	**3 d**	**Thu 4/23/15**	**Mon 4/27/15**	
161	Submit, review and revise QAP	2 d	Thu 4/23/15	Fri 4/24/15	MI, MDE
162	MDE sign-off	1 d	Mon 4/27/15	Mon 4/27/15	MDE
163	**Call Center Documentation**	**62 d**	**Fri 4/24/15**	**Wed 7/22/15**	
164	MI provides MDE with Call Center software documentation	3 d	Fri 4/24/15	Tue 4/28/15	MI
165	MI provides MDE with procedures for call monitoring and escalation	3 d	Fri 4/24/15	Tue 4/28/15	MI
166	MI provides MDE with procedures for ensuring response consistency	3 d	Fri 4/24/15	Tue 4/28/15	MI
167	**Call Center Emergency Plan**	**8 d**	**Fri 4/24/15**	**Tue 5/5/15**	
168	MI provides MDE with Call Center Emergency Plan	3 d	Fri 4/24/15	Tue 4/28/15	MI
169	MDE review of Call Center Emergency Plan	3 d	Wed 4/29/15	Fri 5/1/15	MDE
170	MI revision of MDE Call Center Emergency Plan	1 d	Mon 5/4/15	Mon 5/4/15	MI
171	MDE sign-off	1 d	Tue 5/5/15	Tue 5/5/15	MDE
172	**Call Center Reports**	**61 d**	**Mon 4/27/15**	**Wed 7/22/15**	
173	MI provides MDE with initial Call Center Detail reports	1 d	Mon 4/27/15	Mon 4/27/15	MI
174	MI provides MDE with initial Call Center summary reports	1 d	Mon 4/27/15	Mon 4/27/15	MI
175	**Approved Answers Documentation**	**13 d**	**Mon 7/6/15**	**Wed 7/22/15**	
176	MI creates and provides MDE with approved answers documentation	5 d	Mon 7/6/15	Fri 7/10/15	MI
177	MDE review of approved answers documentation	5 d	Mon 7/13/15	Fri 7/17/15	MDE
178	MI revision of approved answers documentation	2 d	Mon 7/20/15	Tue 7/21/15	MI
179	MDE sign-off	1 d	Wed 7/22/15	Wed 7/22/15	MDE
180	**Staff Training**	**161 d**	**Mon 7/27/15**	**Mon 3/14/16**	
181	Initial training for Level 1 support	3 d	Mon 7/27/15	Wed 7/29/15	MI, MDE
182	Interim Follow up training for Level 1 support	1 d	Mon 8/10/15	Mon 8/10/15	MI, MDE
183	Summative Follow up training for Level 1 support	1 d	Mon 3/14/16	Mon 3/14/16	MI, MDE
184	Initial training for Level 2 support	3 d	Mon 7/27/15	Wed 7/29/15	MI, MDE
185	Interim Follow up training for Level 2 support	1 d	Mon 8/10/15	Mon 8/10/15	MI, MDE
186	Summative Follow up training for Level 2 support	1 d	Mon 3/14/16	Mon 3/14/16	MI, MDE
187	Initial training for Level 3 support	3 d	Mon 7/27/15	Wed 7/29/15	MI, MDE
188	Interim Follow up training for Level 3 support	1 d	Mon 8/10/15	Mon 8/10/15	MI, MDE
189	Summative Follow up training for Level 3 support	1 d	Mon 3/14/16	Mon 3/14/16	MI, MDE
190	**Sampling Plan(s) for Spiral Fixed Forms - Mock Data UAT**	**30 d**	**Mon 4/27/15**	**Mon 6/8/15**	
191	**Gather and document sampling plan requirements**	**4 d**	**Mon 4/27/15**	**Thu 4/30/15**	

192	Submit, review and revise requirements	2 d	Mon 4/27/15	Tue 4/28/15	MI, MDE
193	MDE sign-off	1 d	Wed 4/29/15	Wed 4/29/15	MDE
194	**Gather and document sampling plan UAT requirements**	**3 d**	**Tue 4/28/15**	**Thu 4/30/15**	
195	Submit, review and revise requirements	2 d	Tue 4/28/15	Wed 4/29/15	MI, MDE
196	MDE sign-off	1 d	Thu 4/30/15	Thu 4/30/15	MDE

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ID	Task Name	Duration	Start	Finish	Resources
197	**Test Deck**	**20 d**	**Thu 4/30/15**	**Thu 5/28/15**	
198	MI generates mock data test deck	15 d	Thu 4/30/15	Wed 5/20/15	MI
199	MDE review	2 d	Thu 5/21/15	Fri 5/22/15	MDE
200	MI revision	2 d	Tue 5/26/15	Wed 5/27/15	MI
201	MDE sign-off	1 d	Thu 5/28/15	Thu 5/28/15	MDE
202	**Mock Data Sampling Plan(s)**	**7 d**	**Fri 5/29/15**	**Mon 6/8/15**	
203	MI generates mock data sampling plan(s)	3 d	Fri 5/29/15	Tue 6/2/15	MI
204	MDE reviews mock data sampling plan(s)	2 d	Wed 6/3/15	Thu 6/4/15	MDE
205	MI revises mock data sampling plan(s)	1 d	Fri 6/5/15	Fri 6/5/15	MI
206	MDE sign-off	1 d	Mon 6/8/15	Mon 6/8/15	MDE
207	**Requirements Documentation [Assessment Scoring]**	**42 d**	**Wed 4/15/15**	**Fri 6/12/15**	
208	**Gather and document handscoring constructed response export UAT requirements**	**3 d**	**Wed 6/10/15**	**Fri 6/12/15**	
209	Submit, review and revise requirements	2 d	Wed 6/10/15	Thu 6/11/15	MI, MDE
210	MDE sign-off	1 d	Fri 6/12/15	Fri 6/12/15	MDE
211	**Gather and document rangefinding requirements**	**4 d**	**Wed 5/13/15**	**Mon 5/18/15**	
212	Submit, review and revise requirements	2 d	Wed 5/13/15	Thu 5/14/15	MI, MDE
213	MDE sign-off	1 d	Fri 5/15/15	Fri 5/15/15	MDE
214	**Gather and document rangefinding QAP**	**3 d**	**Thu 5/14/15**	**Mon 5/18/15**	
215	Submit, review and revise requirements	2 d	Thu 5/14/15	Fri 5/15/15	MI, MDE
216	MDE sign-off	1 d	Mon 5/18/15	Mon 5/18/15	MDE
217	**Gather and document machine scoring requirements**	**5 d**	**Wed 4/15/15**	**Tue 4/21/15**	
218	Submit, review and revise requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI, MDE
219	MDE sign-off	1 d	Fri 4/17/15	Fri 4/17/15	MDE
220	**Gather and document machine Scoring QAP**	**3 d**	**Thu 4/16/15**	**Mon 4/20/15**	
221	Submit, review and revise requirements	2 d	Thu 4/16/15	Fri 4/17/15	MI, MDE
222	MDE sign-off	1 d	Mon 4/20/15	Mon 4/20/15	MDE
223	**Gather and document machine scoring UAT requirements**	**3 d**	**Fri 4/17/15**	**Tue 4/21/15**	
224	Submit, review and revise requirements	2 d	Fri 4/17/15	Mon 4/20/15	MI, MDE
225	MDE sign-off	1 d	Tue 4/21/15	Tue 4/21/15	MDE
226	**Gather and document AI scoring requirements**	**5 d**	**Wed 4/15/15**	**Tue 4/21/15**	
227	Submit, review and revise requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI, MDE
228	MDE sign-off	1 d	Fri 4/17/15	Fri 4/17/15	MDE
229	**Gather and document AI Scoring QAP**	**3 d**	**Thu 4/16/15**	**Mon 4/20/15**	
230	Submit, review and revise requirements	2 d	Thu 4/16/15	Fri 4/17/15	MI, MDE
231	MDE sign-off	1 d	Mon 4/20/15	Mon 4/20/15	MDE
232	**Gather and document AI scoring UAT requirements**	**3 d**	**Fri 4/17/15**	**Tue 4/21/15**	
233	Submit, review and revise requirements	2 d	Fri 4/17/15	Mon 4/20/15	MI, MDE
234	MDE sign-off	1 d	Tue 4/21/15	Tue 4/21/15	MDE
235	**Gather and document handscoring requirements**	**4 d**	**Wed 5/13/15**	**Mon 5/18/15**	
236	Submit, review and revise requirements	2 d	Wed 5/13/15	Thu 5/14/15	MI, MDE
237	MDE sign-off	1 d	Fri 5/15/15	Fri 5/15/15	MDE
238	**Gather and document handscoring Scoring QAP**	**3 d**	**Thu 5/14/15**	**Mon 5/18/15**	
239	Submit, review and revise requirements	2 d	Thu 5/14/15	Fri 5/15/15	MI, MDE
240	MDE sign-off	1 d	Mon 5/18/15	Mon 5/18/15	MDE

241	**Requirements Documentation [Reporting]**	**5 d**	**Tue 5/19/15**	**Tue 5/26/15**	
242	**Gather and document reporting requirements**	**5 d**	**Tue 5/19/15**	**Tue 5/26/15**	
243	Submit, review and revise requirements	2 d	Tue 5/19/15	Wed 5/20/15	MI, MDE
244	MDE sign-off	1 d	Thu 5/21/15	Thu 5/21/15	MDE
245	**Gather and document reporting QAP**	**3 d**	**Wed 5/20/15**	**Fri 5/22/15**	

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ID	Task Name	Duration	Start	Finish	Resources
246	Submit, review and revise QAP	2 d	Wed 5/20/15	Thu 5/21/15	MI, MDE
247	MDE sign-off	1 d	Fri 5/22/15	Fri 5/22/15	MDE
248	**Gather and document reporting UAT requirements**	**3 d**	**Thu 5/21/15**	**Tue 5/26/15**	
249	Submit, review and revise requirements	2 d	Thu 5/21/15	Fri 5/22/15	MI, MDE
250	MDE sign-off	1 d	Tue 5/26/15	Tue 5/26/15	MDE
251	**Formative Assessment System**	**124 d**	**Mon 3/16/15**	**Tue 9/8/15**	
252	**Gather and document Formative Assessment System requirements**	**16 d**	**Mon 3/16/15**	**Mon 4/6/15**	
253	submit, review, and revise requirements	15 d	Mon 3/16/15	Fri 4/3/15	MI, MDE
254	MDE sign-off	1 d	Mon 4/6/15	Mon 4/6/15	MDE
255	**System Functionality**	**48 d**	**Tue 4/7/15**	**Fri 6/12/15**	
256	Configure and QA Formative Assessment System	23 d	Tue 4/7/15	Thu 5/7/15	MI
257	MDE initial Formative Assessment System functionality review	10 d	Fri 5/8/15	Thu 5/21/15	MDE
258	Revise and QA requested changes to Formative Assessment System functionality	10 d	Fri 5/22/15	Fri 6/5/15	MI
259	MDE final Formative Assessment System functionality review and approval	5 d	Mon 6/8/15	Fri 6/12/15	MDE
260	Formative Assessment System functionality complete	0 d	Fri 6/12/15	Fri 6/12/15	
261	**User Resources**	**36 d**	**Mon 6/15/15**	**Tue 8/4/15**	
262	Develop user resources (basic informative and support materials)	15 d	Mon 6/15/15	Mon 7/6/15	MI
263	MDE initial review of user resources	10 d	Tue 7/7/15	Mon 7/20/15	MDE
264	Revise and QA requested changes to user resources	5 d	Tue 7/21/15	Mon 7/27/15	MI
265	MDE final user resources review and approval	5 d	Tue 7/28/15	Mon 8/3/15	MDE
266	User resources uploaded into the Formative Assessment System	1 d	Tue 8/4/15	Tue 8/4/15	MI
267	**Import and QA Content**	**40 d**	**Mon 6/15/15**	**Mon 8/10/15**	
268	Import, Render, and QA content for Formative Assessment System	15 d	Mon 6/15/15	Mon 7/6/15	MI
269	**Content Rendering UATs**	**25 d**	**Tue 7/7/15**	**Mon 8/10/15**	
270	MDE reviews content	10 d	Tue 7/7/15	Mon 7/20/15	MDE
271	Revise and QA content	10 d	Tue 7/21/15	Mon 8/3/15	MI
272	MDE sign-off	5 d	Tue 8/4/15	Mon 8/10/15	MDE
273	**Roster Import**	**54 d**	**Mon 6/15/15**	**Fri 8/28/15**	
274	Initial roster data pull from MDE Secure Site	34 d	Mon 6/15/15	Fri 7/31/15	MDE
275	Import and QA rosters into Formative Assessment System	20 d	Mon 8/3/15	Fri 8/28/15	MI
276	Automated roster updates (daily)	1 d	Mon 8/3/15	Mon 8/3/15	MI
277	**Comprehensive System Review and Approval**	**20 d**	**Tue 8/11/15**	**Tue 9/8/15**	
278	MDE final review of comprehensive Formative Assessment System	5 d	Tue 8/11/15	Mon 8/17/15	MDE
279	Revise and QA requested changes to comprehensive Formative Assessment System	10 d	Tue 8/18/15	Mon 8/31/15	MI
280	MDE official sign-off on comprehensive Formative Assessment System	5 d	Tue 9/1/15	Tue 9/8/15	MDE
281	Formative Assessment System available to schools	0 d	Tue 9/8/15	Tue 9/8/15	
282	**2015-16 Interim Assessments**	**310 d**	**Thu 4/16/15**	**Tue 7/5/16**	
283	**Online Testing Documentation**	**60 d**	**Thu 4/30/15**	**Mon 7/27/15**	
284	**Online Administration TAMs/Test Directions**	**60 d**	**Thu 4/30/15**	**Fri 7/24/15**	
285	MI develops TAMs/Test Directions	45 d	Thu 4/30/15	Thu 7/2/15	MI
286	Review and revision	12 d	Mon 7/6/15	Tue 7/21/15	MI, MDE
287	MDE-Sign-off	3 d	Wed 7/22/15	Fri 7/24/15	MDE
288	**Quick Start Guides/Checklists**	**45 d**	**Thu 5/21/15**	**Fri 7/24/15**	
289	MI develops Quick Start Guides/Checklists	30 d	Thu 5/21/15	Thu 7/2/15	MI

290	Review and revision	12 d	Mon 7/6/15	Tue 7/21/15	MI, MDE
291	MDE-Sign-off	3 d	Wed 7/22/15	Fri 7/24/15	MDE
292	Quick Start Guide/Checklist posted online	0 d	Mon 7/27/15	Mon 7/27/15	MI, MDE
293	Online Administration TAMs posted online	0 d	Mon 7/27/15	Mon 7/27/15	MDE
294	**Training**	**210 d**	**Thu 4/16/15**	**Fri 2/12/16**	

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ID	Task Name	Duration	Start	Finish	Resources
295	**Installation & System Check**	**145 d**	**Mon 7/20/15**	**Fri 2/12/16**	
296	Review and revision of System Check	3 d	Mon 7/20/15	Wed 7/22/15	MI, MDE
297	MDE sign-off	1 d	Thu 7/23/15	Thu 7/23/15	MDE
298	Schools download and install Online Test Delivery System (executable file)	140 d	Mon 7/27/15	Fri 2/12/16	
299	**Student Web-based Practice**	**210 d**	**Thu 4/16/15**	**Fri 2/12/16**	
300	MI generates practice tests	20 d	Thu 4/16/15	Wed 5/13/15	MI
301	Practice items reviewed and revised	12 d	Thu 5/14/15	Mon 6/1/15	MI, MDE
302	MDE sign-off	2 d	Tue 6/2/15	Wed 6/3/15	MDE
303	Revise student practice test email	5 d	Thu 6/4/15	Wed 6/10/15	MI, MDE
304	Distribute student practice test email	1 d	Thu 6/11/15	Thu 6/11/15	MI
305	Practice test available to schools	0 d	Fri 6/12/15	Fri 6/12/15	MI
306	Students practice	170 d	Fri 6/12/15	Fri 2/12/16	
307	**Test Administrator Web-Based Practice**	**180 d**	**Fri 5/29/15**	**Fri 2/12/16**	
308	MI develops Test Administrator practice website	20 d	Fri 5/29/15	Thu 6/25/15	MI
309	MDE review of Test Administrator practice website	1 d	Fri 6/26/15	Fri 6/26/15	MDE
310	MI revision of Test Administrator practice website	5 d	Mon 6/29/15	Mon 7/6/15	MI
311	MDE sign-off	1 d	Tue 7/7/15	Tue 7/7/15	MDE
312	Test administrators practice	150 d	Mon 7/13/15	Fri 2/12/16	
313	**Training Videos/Webinars**	**131 d**	**Thu 5/14/15**	**Tue 11/17/15**	
314	**Training Video Content/Presentation Modes**	**7 d**	**Thu 5/14/15**	**Fri 5/22/15**	
315	Review and revision of video content/presentation modes	5 d	Thu 5/14/15	Wed 5/20/15	MI, MDE
316	MDE sign-off of video content/presentation modes	1 d	Fri 5/22/15	Fri 5/22/15	MDE
317	**Assessment Training Sessions**	**88 d**	**Thu 7/16/15**	**Tue 11/17/15**	
318	TurboMeeting setup	2 d	Thu 7/16/15	Fri 7/17/15	MI
319	TurboMeeting practice	1 d	Fri 7/17/15	Fri 7/17/15	MI, MDE
320	Technology Coordinator Webinar practice and recording	1 d	Mon 7/20/15	Mon 7/20/15	MI, MDE
321	District Coordinator Webinar practice and recording	1 d	Tue 7/21/15	Tue 7/21/15	MI, MDE
322	Test Administrator Webinar practice and recording	1 d	Wed 7/22/15	Wed 7/22/15	MI, MDE
323	Live Technology Coordinator Webinar (Pre Test)	1 d	Mon 7/27/15	Mon 7/27/15	MI, MDE
324	Live District Coordinator Webinar (Pre Test)	1 d	Mon 7/27/15	Mon 7/27/15	MI, MDE
325	Live Test Administrator Webinar (Pre Test)	1 d	Mon 7/27/15	Mon 7/27/15	MI, MDE
326	Live Technology Coordinator Webinar (Mid Test)	1 d	Fri 9/18/15	Fri 9/18/15	MI, MDE
327	Live District Coordinator Webinar (Mid Test)	1 d	Fri 9/18/15	Fri 9/18/15	MI, MDE
328	Live Test Administrator Webinar (Mid Test)	1 d	Fri 9/18/15	Fri 9/18/15	MI, MDE
329	Live Technology Coordinator Webinar (Post Test)	1 d	Tue 11/17/15	Tue 11/17/15	MI, MDE
330	Live District Coordinator Webinar (Post Test)	1 d	Tue 11/17/15	Tue 11/17/15	MI, MDE
331	Live Test Administrator Webinar (Post Test)	1 d	Tue 11/17/15	Tue 11/17/15	MI, MDE
332	**Online Tools Tutorials (Training Videos)**	**10 d**	**Fri 5/29/15**	**Fri 6/12/15**	
333	**Online tools proctor video**	**10 d**	**Fri 5/29/15**	**Thu 6/11/15**	
334	Submit, review and revise proctor video	5 d	Fri 5/29/15	Thu 6/4/15	MI, MDE
335	MDE sign-off	5 d	Fri 6/5/15	Thu 6/11/15	MDE
336	**Online tools student video**	**10 d**	**Fri 5/29/15**	**Thu 6/11/15**	
337	Submit, review and revise student video	5 d	Fri 5/29/15	Thu 6/4/15	MI, MDE
338	MDE sign-off	5 d	Fri 6/5/15	Thu 6/11/15	MDE

339	Online tools proctor/student videos available to schools	0 d	Fri 6/12/15	Fri 6/12/15	
340	**Michigan Interim Pre Test (fixed forms)**	**195 d**	**Fri 6/5/15**	**Fri 3/11/16**	
341	**Test Development**	**62 d**	**Fri 6/5/15**	**Tue 9/1/15**	
342	**ELA K-12**	**62 d**	**Fri 6/5/15**	**Tue 9/1/15**	
343	**MI receives Test Packages and Test Maps**	**0 d**	**Fri 6/5/15**	**Fri 6/5/15**	**MDE**

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ID	Task	Duration	Start	Finish	Resources
344	**MI renders items in Online Test Delivery System**	**20 d**	**Fri 6/5/15**	**Thu 7/2/15**	**MI**
345	**Item Rendering UATs**	**26 d**	**Mon 7/6/15**	**Mon 8/10/15**	
346	MDE review and revise items	15 d	Mon 7/6/15	Fri 7/24/15	MDE
347	MI imports revised items	10 d	Mon 7/27/15	Fri 8/7/15	MI
348	MDE sign-off	1 d	Mon 8/10/15	Mon 8/10/15	MDE
349	**MI assembles fixed forms**	**5 d**	**Tue 8/11/15**	**Mon 8/17/15**	**MI**
350	**Fixed Form UATs**	**11 d**	**Tue 8/18/15**	**Tue 9/1/15**	
351	MDE reviews forms	5 d	Tue 8/18/15	Mon 8/24/15	MDE
352	MI revises forms	5 d	Tue 8/25/15	Mon 8/31/15	MI
353	MDE sign-off	1 d	Tue 9/1/15	Tue 9/1/15	MDE
354	**Math K-12**	**62 d**	**Fri 6/5/15**	**Tue 9/1/15**	
355	**MI receives Test Packages and Test Maps**	**0 d**	**Fri 6/5/15**	**Fri 6/5/15**	**MDE**
356	**MI renders items in Online Test Delivery System**	**20 d**	**Fri 6/5/15**	**Thu 7/2/15**	**MI**
357	**Item Rendering UATs**	**26 d**	**Mon 7/6/15**	**Mon 8/10/15**	
358	MDE review and revise items	15 d	Mon 7/6/15	Fri 7/24/15	MDE
359	MI imports revised items	10 d	Mon 7/27/15	Fri 8/7/15	MI
360	MDE sign-off	1 d	Mon 8/10/15	Mon 8/10/15	MDE
361	**MI assembles fixed forms**	**5 d**	**Tue 8/11/15**	**Mon 8/17/15**	**MI**
362	**Fixed Form UATs**	**11 d**	**Tue 8/18/15**	**Tue 9/1/15**	
363	MDE reviews forms	5 d	Tue 8/18/15	Mon 8/24/15	MDE
364	MI revises forms	5 d	Tue 8/25/15	Mon 8/31/15	MI
365	MDE sign-off	1 d	Tue 9/1/15	Tue 9/1/15	MDE
366	**Science 3-12**	**62 d**	**Fri 6/5/15**	**Tue 9/1/15**	
367	**MI receives QTI item export file(s) and Test Maps**	**0 d**	**Fri 6/5/15**	**Fri 6/5/15**	**MDE**
368	**MI renders items in Online Test Delivery System**	**20 d**	**Fri 6/5/15**	**Thu 7/2/15**	**MI**
369	**Item Rendering UATs**	**26 d**	**Mon 7/6/15**	**Mon 8/10/15**	
370	MDE review and revise items	15 d	Mon 7/6/15	Fri 7/24/15	MDE
371	MI imports revised items	10 d	Mon 7/27/15	Fri 8/7/15	MI
372	MDE sign-off	1 d	Mon 8/10/15	Mon 8/10/15	MDE
373	**MI assembles fixed forms**	**5 d**	**Tue 8/11/15**	**Mon 8/17/15**	**MI**
374	**Fixed Form UATs**	**11 d**	**Tue 8/18/15**	**Tue 9/1/15**	
375	MDE reviews forms	5 d	Tue 8/18/15	Mon 8/24/15	MDE
376	MI revises forms	5 d	Tue 8/25/15	Mon 8/31/15	MI
377	MDE sign-off	1 d	Tue 9/1/15	Tue 9/1/15	MDE
378	**Social Studies 3-12**	**62 d**	**Fri 6/5/15**	**Tue 9/1/15**	
379	**MI receives QTI item export file(s) and Test Maps**	**0 d**	**Fri 6/5/15**	**Fri 6/5/15**	**MDE**
380	**MI renders items in Online Test Delivery System**	**20 d**	**Fri 6/5/15**	**Thu 7/2/15**	**MI**
381	**Item Rendering UATs**	**26 d**	**Mon 7/6/15**	**Mon 8/10/15**	
382	MDE review and revise items	15 d	Mon 7/6/15	Fri 7/24/15	MDE
383	MI imports revised items	10 d	Mon 7/27/15	Fri 8/7/15	MI
384	MDE sign-off	1 d	Mon 8/10/15	Mon 8/10/15	MDE
385	**MI assembles fixed forms**	**5 d**	**Tue 8/11/15**	**Mon 8/17/15**	**MI**
386	**Fixed Form UATs**	**11 d**	**Tue 8/18/15**	**Tue 9/1/15**	
387	MDE reviews forms	5 d	Tue 8/18/15	Mon 8/24/15	MDE

388	MI revises forms	5 d	Tue 8/25/15	Mon 8/31/15	MI
389	MDE sign-off	1 d	Tue 9/1/15	Tue 9/1/15	MDE
390	**Online Test Delivery System Data UATs**	**19 d**	**Mon 8/10/15**	**Thu 9/3/15**	
391	**Online Test Delivery System Virtual Scan/Edit UAT**	**14 d**	**Mon 8/10/15**	**Thu 8/27/15**	
392	Test case data pushed to MDE No Barcode process	1 d	Mon 8/10/15	Mon 8/10/15	MI

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ID	Task	Duration	Start	Finish	Resources
393	Generate spreadsheets for test case entry	3 d	Mon 8/10/15	Wed 8/12/15	MI
394	MI enters test case data via tester station, proctor website	3 d	Tue 8/11/15	Thu 8/13/15	MI
395	MI generates expected data printouts	3 d	Fri 8/14/15	Tue 8/18/15	MI
396	Test data and expected data printouts to MDE	1 d	Wed 8/19/15	Wed 8/19/15	MI
397	MDE compares test data to expected data	3 d	Thu 8/20/15	Mon 8/24/15	MDE
398	Resolve issues, if necessary	2 d	Tue 8/25/15	Wed 8/26/15	MI
399	MDE sign-off	1 d	Thu 8/27/15	Thu 8/27/15	MDE
400	**Machine Scoring and Student Testing Data UATs**	**5 d**	**Fri 8/28/15**	**Thu 9/3/15**	
401	MI provides MDE with Student testing data	1 d	Fri 8/28/15	Fri 8/28/15	MI
402	MDE review	3 d	Mon 8/31/15	Wed 9/2/15	MDE
403	MDE sign-off	1 d	Thu 9/3/15	Thu 9/3/15	MDE
404	**Mock Reporting UAT**	**5 d**	**Fri 8/28/15**	**Thu 9/3/15**	
405	MI conducts mock reporting UAT	2 d	Fri 8/28/15	Mon 8/31/15	MI
406	MDE review	2 d	Tue 9/1/15	Wed 9/2/15	MDE
407	MDE sign-off	1 d	Thu 9/3/15	Thu 9/3/15	MDE
408	**Assessment Registration**	**151 d**	**Fri 8/7/15**	**Fri 3/11/16**	
409	**District and School Information**	**51 d**	**Fri 8/7/15**	**Mon**	
410	Districts/schools update contact information via Secure Site	1 d	Fri 8/7/15	Fri 8/7/15	
411	Initial district/school information pull	1 d	Mon 8/10/15	Mon 8/10/15	MI
412	Update pull	1 d	Mon 8/17/15	Mon 8/17/15	MI
413	Daily update pulls	44 d	Tue 8/18/15	Mon 10/19/15	MI
414	**Online Test Delivery System Student/Test Session Registration**	**40 d**	**Mon 8/24/15**	**Mon**	
415	Districts/schools register students via Secure Site	10 d	Mon 8/24/15	Fri 9/4/15	
416	Initial pull	1 d	Tue 8/25/15	Tue 8/25/15	MI
417	Update pull	1 d	Wed 8/26/15	Wed 8/26/15	MI
418	Daily update and new enrollee registration pulls	37 d	Thu 8/27/15	Mon 10/19/15	MI
419	**Personal Needs Profile Information**	**140 d**	**Mon 8/24/15**	**Fri 3/11/16**	
420	Districts/schools update student personal needs profile via Secure Site	140 d	Mon 8/24/15	Fri 3/11/16	
421	Initial pull	1 d	Tue 8/25/15	Tue 8/25/15	MI
422	Update pull based on pre-established frequency	37 d	Thu 8/27/15	Mon 10/19/15	MI
423	**Test Administration**	**30 d**	**Tue 9/8/15**	**Mon**	
424	ELA K-12	30 d	Tue 9/8/15	Mon 10/19/15	
425	Math K-12	30 d	Tue 9/8/15	Mon 10/19/15	
426	Science 3-12	30 d	Tue 9/8/15	Mon 10/19/15	
427	Social Studies 3-12	30 d	Tue 9/8/15	Mon 10/19/15	
428	**Post-Administration Processing**	**6 d**	**Tue 10/20/15**	**Tue 10/27/15**	
429	Machine Scoring	1 d	Tue 10/20/15	Tue 10/20/15	MI
430	MI generates Student testing data	4 d	Wed	Mon 10/26/15	MI
431	MI provides MDE with Student testing data	1 d	Tue 10/27/15	Tue 10/27/15	MI
432	**Reporting**	**30 d**	**Wed 9/9/15**	**Tue 10/20/15**	
433	Online custom data access available to schools (updated daily)	30 d	Wed 9/9/15	Tue 10/20/15	MI
434	**Michigan Interim Mid Test (fixed forms)**	**195 d**	**Thu 7/30/15**	**Wed 5/4/16**	
435	**Test Development**	**62 d**	**Thu 7/30/15**	**Mon**	
436	**ELA K-12**	**62 d**	**Thu 7/30/15**	**Mon**	

437	**MI receives Test Packages and Test Maps**	**0 d**	**Thu 7/30/15**	**Thu 7/30/15**	**MDE**
438	**MI renders items in MIST**	**20 d**	**Thu 7/30/15**	**Wed 8/26/15**	**MI**
439	**Item Rendering UATs**	**26 d**	**Thu 8/27/15**	**Fri 10/2/15**	
440	MDE review and revise items	15 d	Thu 8/27/15	Thu 9/17/15	MDE
441	MI imports revised items	10 d	Fri 9/18/15	Thu 10/1/15	MI

ID	Task Name	Duration	Start	Finish	Resources
442	MDE sign-off	1 d	Fri 10/2/15	Fri 10/2/15	MDE
443	**MI assembles fixed forms**	**5 d**	**Mon 10/5/15**	**Fri 10/9/15**	**MI**
444	**Fixed Form UATs**	**11 d**	**Mon**	**Mon**	
445	MDE reviews forms	5 d	Mon 10/12/15	Fri 10/16/15	MDE
446	MI revises forms	5 d	Mon 10/19/15	Fri 10/23/15	MI
447	MDE sign-off	1 d	Mon 10/26/15	Mon 10/26/15	MDE
448	**Math K-12**	**62 d**	**Thu 7/30/15**	**Mon**	
449	**MI receives Test Packages and Test Maps**	**0 d**	**Thu 7/30/15**	**Thu 7/30/15**	**MDE**
450	**MI renders items in MIST**	**20 d**	**Thu 7/30/15**	**Wed 8/26/15**	**MI**
451	**Item Rendering UATs**	**26 d**	**Thu 8/27/15**	**Fri 10/2/15**	
452	MDE review and revise items	15 d	Thu 8/27/15	Thu 9/17/15	MDE
453	MI imports revised items	10 d	Fri 9/18/15	Thu 10/1/15	MI
454	MDE sign-off	1 d	Fri 10/2/15	Fri 10/2/15	MDE
455	**MI assembles fixed forms**	**5 d**	**Mon 10/5/15**	**Fri 10/9/15**	**MI**
456	**Fixed Form UATs**	**11 d**	**Mon**	**Mon**	
457	MDE reviews forms	5 d	Mon 10/12/15	Fri 10/16/15	MDE
458	MI revises forms	5 d	Mon 10/19/15	Fri 10/23/15	MI
459	MDE sign-off	1 d	Mon 10/26/15	Mon 10/26/15	MDE
460	**Science 3-12**	**62 d**	**Thu 7/30/15**	**Mon**	
461	**MI receives QTI item export file(s) and Test Maps**	**0 d**	**Thu 7/30/15**	**Thu 7/30/15**	**MDE**
462	**MI renders items in MIST**	**20 d**	**Thu 7/30/15**	**Wed 8/26/15**	**MI**
463	**Item Rendering UATs**	**26 d**	**Thu 8/27/15**	**Fri 10/2/15**	
464	MDE review and revise items	15 d	Thu 8/27/15	Thu 9/17/15	MDE
465	MI imports revised items	10 d	Fri 9/18/15	Thu 10/1/15	MI
466	MDE sign-off	1 d	Fri 10/2/15	Fri 10/2/15	MDE
467	**MI assembles fixed forms**	**5 d**	**Mon 10/5/15**	**Fri 10/9/15**	**MI**
468	**Fixed Form UATs**	**11 d**	**Mon**	**Mon**	
469	MDE reviews forms	5 d	Mon 10/12/15	Fri 10/16/15	MDE
470	MI revises forms	5 d	Mon 10/19/15	Fri 10/23/15	MI
471	MDE sign-off	1 d	Mon 10/26/15	Mon 10/26/15	MDE
472	**Social Studies 3-12**	**62 d**	**Thu 7/30/15**	**Mon**	
473	**MI receives QTI item export file(s) and Test Maps**	**0 d**	**Thu 7/30/15**	**Thu 7/30/15**	**MDE**
474	**MI renders items in MIST**	**20 d**	**Thu 7/30/15**	**Wed 8/26/15**	**MI**
475	**Item Rendering UATs**	**26 d**	**Thu 8/27/15**	**Fri 10/2/15**	
476	MDE review and revise items	15 d	Thu 8/27/15	Thu 9/17/15	MDE
477	MI imports revised items	10 d	Fri 9/18/15	Thu 10/1/15	MI
478	MDE sign-off	1 d	Fri 10/2/15	Fri 10/2/15	MDE
479	**MI assembles fixed forms**	**5 d**	**Mon 10/5/15**	**Fri 10/9/15**	**MI**
480	**Fixed Form UATs**	**11 d**	**Mon**	**Mon**	
481	MDE reviews forms	5 d	Mon 10/12/15	Fri 10/16/15	MDE
482	MI revises forms	5 d	Mon 10/19/15	Fri 10/23/15	MI
483	MDE sign-off	1 d	Mon 10/26/15	Mon 10/26/15	MDE
484	**MIST Data UATs**	**19 d**	**Tue 10/27/15**	**Fri 11/20/15**	
485	**MIST Virtual Scan/Edit UAT**	**14 d**	**Tue 10/27/15**	**Fri 11/13/15**	

486	Test case data pushed to MDE No Barcode process	1 d	Tue 10/27/15	Tue 10/27/15	MI
487	Generate spreadsheets for test case entry	3 d	Tue 10/27/15	Thu 10/29/15	MI
488	MI Software Products Team enters test case data via MIST tester station, proctor website	3 d	Wed	Fri 10/30/15	MI
489	MI Software Products Team generates expected data printouts	3 d	Mon 11/2/15	Wed 11/4/15	MI
490	Test data and expected data printouts to MDE	1 d	Thu 11/5/15	Thu 11/5/15	MI

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ID	Task	Duration	Start	Finish	Resources
491	MDE compares test data to expected data	3 d	Fri 11/6/15	Tue 11/10/15	MDE
492	Resolve issues, if necessary	2 d	Wed	Thu 11/12/15	MI
493	MDE sign-off	1 d	Fri 11/13/15	Fri 11/13/15	MDE
494	**Machine Scoring and Student Testing Data UATs**	**4.5 d**	**Mon**	**Fri 11/20/15**	
495	MI provides MDE with Student testing data	0.5 d	Mon 11/16/15	Mon 11/16/15	MI
496	MDE review	3 d	Mon 11/16/15	Thu 11/19/15	MDE
497	MDE sign-off	1 d	Thu 11/19/15	Fri 11/20/15	MDE
498	**Mock Reporting UAT**	**5 d**	**Mon**	**Fri 11/20/15**	
499	MI conducts mock reporting UAT	2 d	Mon 11/16/15	Tue 11/17/15	MI
500	MDE review	2 d	Wed	Thu 11/19/15	MDE
501	MDE sign-off	1 d	Fri 11/20/15	Fri 11/20/15	MDE
502	**Assessment Registration**	**151 d**	**Thu 10/1/15**	**Wed 5/4/16**	
503	**District and School Information**	**51 d**	**Thu 10/1/15**	**Mon**	
504	Districts/schools update contact information via Secure Site	1 d	Thu 10/1/15	Thu 10/1/15	
505	Initial district/school information pull	1 d	Fri 10/2/15	Fri 10/2/15	MI
506	Update pull	1 d	Fri 10/9/15	Fri 10/9/15	MI
507	Daily update pulls	44 d	Mon 10/12/15	Mon 12/14/15	MI
508	**MIST Student/Test Session Registration**	**40 d**	**Fri 10/16/15**	**Mon**	
509	Districts/schools register students via Secure Site	10 d	Fri 10/16/15	Thu 10/29/15	
510	Initial pull	1 d	Mon 10/19/15	Mon 10/19/15	MI
511	Update pull	1 d	Tue 10/20/15	Tue 10/20/15	MI
512	Daily update and new enrollee registration pulls	37 d	Wed	Mon 12/14/15	MI
513	**Personal Needs Profile Information**	**140 d**	**Fri 10/16/15**	**Wed 5/4/16**	
514	Districts/schools update student personal needs profile via Secure Site	140 d	Fri 10/16/15	Wed 5/4/16	
515	Initial pull	1 d	Mon 10/19/15	Mon 10/19/15	MI
516	Update pull based on pre-established frequency	37 d	Wed	Mon 12/14/15	MI
517	**Test Administration**	**30 d**	**Fri 10/30/15**	**Mon**	
518	ELA K-12	30 d	Fri 10/30/15	Mon 12/14/15	
519	Math K-12	30 d	Fri 10/30/15	Mon 12/14/15	
520	Science 3-12	30 d	Fri 10/30/15	Mon 12/14/15	
521	Social Studies 3-12	30 d	Fri 10/30/15	Mon 12/14/15	
522	**Post-Administration Processing**	**6 d**	**Tue 12/15/15**	**Tue 12/22/15**	
523	Machine Scoring	1 d	Tue 12/15/15	Tue 12/15/15	MI
524	Student testing data generated	3 d	Wed	Fri 12/18/15	MI
525	Data from MI Software Products Team to MI IT Team	1 d	Mon 12/21/15	Mon 12/21/15	MI
526	Student testing data to MDE	1 d	Tue 12/22/15	Tue 12/22/15	MI
527	**Reporting**	**30 d**	**Mon 11/2/15**	**Tue 12/15/15**	
528	Online custom data access available to schools (updated daily)	30 d	Mon 11/2/15	Tue 12/15/15	MI
529	**Michigan Interim Post Test (fixed forms)**	**195 d**	**Tue 9/29/15**	**Tue 7/5/16**	
530	**Test Development**	**62 d**	**Tue 9/29/15**	**Mon**	
531	**ELA K-12**	**62 d**	**Tue 9/29/15**	**Mon**	
532	**MI receives Test Packages and Test Maps**	**0 d**	**Tue 9/29/15**	**Tue 9/29/15**	**MDE**
533	**MI renders items in MIST**	**20 d**	**Tue 9/29/15**	**Mon**	**MI**
534	**Item Rendering UATs**	**26 d**	**Tue 10/27/15**	**Thu 12/3/15**	

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535	MDE review and revise items	15 d	Tue 10/27/15	Mon 11/16/15	MDE
536	MI imports revised items	10 d	Tue 11/17/15	Wed 12/2/15	MI
537	MDE sign-off	1 d	Thu 12/3/15	Thu 12/3/15	MDE
538	**MI assembles fixed forms**	**5 d**	**Fri 12/4/15**	**Thu 12/10/15**	**MI**
539	**Fixed Form UATs**	**11 d**	**Fri 12/11/15**	**Mon**	

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ID	Task Name	Duration	Start	Finish	Resources
540	MDE reviews forms	5 d	Fri 12/11/15	Thu 12/17/15	MDE
541	MI revises forms	5 d	Fri 12/18/15	Thu 12/24/15	MI
542	MDE sign-off	1 d	Mon 12/28/15	Mon 12/28/15	MDE
543	**Math K-12**	**62 d**	**Tue 9/29/15**	**Mon**	
544	**MI receives Test Packages and Test Maps**	**0 d**	**Tue 9/29/15**	**Tue 9/29/15**	**MDE**
545	**MI renders items in MIST**	**20 d**	**Tue 9/29/15**	**Mon**	**MI**
546	**Item Rendering UATs**	**26 d**	**Tue 10/27/15**	**Thu 12/3/15**	
547	MDE review and revise items	15 d	Tue 10/27/15	Mon 11/16/15	MDE
548	MI imports revised items	10 d	Tue 11/17/15	Wed 12/2/15	MI
549	MDE sign-off	1 d	Thu 12/3/15	Thu 12/3/15	MDE
550	**MI assembles fixed forms**	**5 d**	**Fri 12/4/15**	**Thu 12/10/15**	**MI**
551	**Fixed Form UATs**	**11 d**	**Fri 12/11/15**	**Mon**	
552	MDE reviews forms	5 d	Fri 12/11/15	Thu 12/17/15	MDE
553	MI revises forms	5 d	Fri 12/18/15	Thu 12/24/15	MI
554	MDE sign-off	1 d	Mon 12/28/15	Mon 12/28/15	MDE
555	**Science 3-12**	**62 d**	**Tue 9/29/15**	**Mon**	
556	**MI receives QTI item export file(s) and Test Maps**	**0 d**	**Tue 9/29/15**	**Tue 9/29/15**	**MDE**
557	**MI renders items in MIST**	**20 d**	**Tue 9/29/15**	**Mon**	**MI**
558	**Item Rendering UATs**	**26 d**	**Tue 10/27/15**	**Thu 12/3/15**	
559	MDE review and revise items	15 d	Tue 10/27/15	Mon 11/16/15	MDE
560	MI imports revised items	10 d	Tue 11/17/15	Wed 12/2/15	MI
561	MDE sign-off	1 d	Thu 12/3/15	Thu 12/3/15	MDE
562	**MI assembles fixed forms**	**5 d**	**Fri 12/4/15**	**Thu 12/10/15**	**MI**
563	**Fixed Form UATs**	**11 d**	**Fri 12/11/15**	**Mon**	
564	MDE reviews forms	5 d	Fri 12/11/15	Thu 12/17/15	MDE
565	MI revises forms	5 d	Fri 12/18/15	Thu 12/24/15	MI
566	MDE sign-off	1 d	Mon 12/28/15	Mon 12/28/15	MDE
567	**Social Studies 3-12**	**62 d**	**Tue 9/29/15**	**Mon**	
568	**MI receives QTI item export file(s) and Test Maps**	**0 d**	**Tue 9/29/15**	**Tue 9/29/15**	**MDE**
569	**MI renders items in MIST**	**20 d**	**Tue 9/29/15**	**Mon**	**MI**
570	**Item Rendering UATs**	**26 d**	**Tue 10/27/15**	**Thu 12/3/15**	
571	MDE review and revise items	15 d	Tue 10/27/15	Mon 11/16/15	MDE
572	MI imports revised items	10 d	Tue 11/17/15	Wed 12/2/15	MI
573	MDE sign-off	1 d	Thu 12/3/15	Thu 12/3/15	MDE
574	**MI assembles fixed forms**	**5 d**	**Fri 12/4/15**	**Thu 12/10/15**	**MI**
575	**Fixed Form UATs**	**11 d**	**Fri 12/11/15**	**Mon**	
576	MDE reviews forms	5 d	Fri 12/11/15	Thu 12/17/15	MDE
577	MI revises forms	5 d	Fri 12/18/15	Thu 12/24/15	MI
578	MDE sign-off	1 d	Mon 12/28/15	Mon 12/28/15	MDE
579	**MIST Data UATs**	**19 d**	**Tue 12/29/15**	**Mon 1/25/16**	
580	**MIST Virtual Scan/Edit UAT**	**14 d**	**Tue 12/29/15**	**Mon 1/18/16**	
581	Test case data pushed to MDE No Barcode process	1 d	Tue 12/29/15	Tue 12/29/15	MI
582	Generate spreadsheets for test case entry	3 d	Tue 12/29/15	Thu 12/31/15	MI
583	MI Software Products Team enters test case data via MIST tester station, proctor website	3 d	Wed	Mon 1/4/16	MI

584	MI Software Products Team generates expected data printouts	3 d	Tue 1/5/16	Thu 1/7/16	MI
585	Test data and expected data printouts to MDE	1 d	Fri 1/8/16	Fri 1/8/16	MI
586	MDE compares test data to expected data	3 d	Mon 1/11/16	Wed 1/13/16	MDE
587	Resolve issues, if necessary	2 d	Thu 1/14/16	Fri 1/15/16	MI
588	MDE sign-off	1 d	Mon 1/18/16	Mon 1/18/16	MDE

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ID	Task	Duration	Start	Finish	Resources
589	**Machine Scoring and Student Testing Data UATs**	**4.5 d**	**Tue 1/19/16**	**Mon 1/25/16**	
590	MI provides MDE with Student testing data	0.5 d	Tue 1/19/16	Tue 1/19/16	MI
591	MDE review	3 d	Tue 1/19/16	Fri 1/22/16	MDE
592	MDE sign-off	1 d	Fri 1/22/16	Mon 1/25/16	MDE
593	**Mock Reporting UAT**	**5 d**	**Tue 1/19/16**	**Mon 1/25/16**	
594	MI conducts mock reporting UAT	2 d	Tue 1/19/16	Wed 1/20/16	MI
595	MDE review	2 d	Thu 1/21/16	Fri 1/22/16	MDE
596	MDE sign-off	1 d	Mon 1/25/16	Mon 1/25/16	MDE
597	**Assessment Registration**	**151 d**	**Wed 12/2/15**	**Tue 7/5/16**	
598	**District and School Information**	**51 d**	**Wed 12/2/15**	**Fri 2/12/16**	
599	Districts/schools update contact information via Secure Site	1 d	Wed 12/2/15	Wed 12/2/15	
600	Initial district/school information pull	1 d	Thu 12/3/15	Thu 12/3/15	MI
601	Update pull	1 d	Thu 12/10/15	Thu 12/10/15	MI
602	Daily update pulls	44 d	Fri 12/11/15	Fri 2/12/16	MI
603	**MIST Student/Test Session Registration**	**40 d**	**Thu 12/17/15**	**Fri 2/12/16**	
604	Districts/schools register students via Secure Site	10 d	Thu 12/17/15	Thu 12/31/15	
605	Initial pull	1 d	Fri 12/18/15	Fri 12/18/15	MI
606	Update pull	1 d	Mon 12/21/15	Mon 12/21/15	MI
607	Daily update and new enrollee registration pulls	37 d	Tue 12/22/15	Fri 2/12/16	MI
608	**Personal Needs Profile Information**	**140 d**	**Thu 12/17/15**	**Tue 7/5/16**	
609	Districts/schools update student personal needs profile via Secure Site	140 d	Thu 12/17/15	Tue 7/5/16	
610	Initial pull	1 d	Fri 12/18/15	Fri 12/18/15	MI
611	Update pull based on pre-established frequency	37 d	Tue 12/22/15	Fri 2/12/16	MI
612	**Test Administration**	**30 d**	**Mon 1/4/16**	**Fri 2/12/16**	
613	ELA K-12	30 d	Mon 1/4/16	Fri 2/12/16	
614	Math K-12	30 d	Mon 1/4/16	Fri 2/12/16	
615	Science 3-12	30 d	Mon 1/4/16	Fri 2/12/16	
616	Social Studies 3-12	30 d	Mon 1/4/16	Fri 2/12/16	
617	**Post-Administration Processing**	**6 d**	**Mon 2/15/16**	**Mon 2/22/16**	
618	Machine Scoring	1 d	Mon 2/15/16	Mon 2/15/16	MI
619	Student testing data generated	3 d	Tue 2/16/16	Thu 2/18/16	MI
620	Data from MI Software Products Team to MI IT Team	1 d	Fri 2/19/16	Fri 2/19/16	MI
621	Student testing data to MDE	1 d	Mon 2/22/16	Mon 2/22/16	MI
622	**Reporting**	**30 d**	**Tue 1/5/16**	**Mon 2/15/16**	
623	Online custom data access available to schools (updated daily)	30 d	Tue 1/5/16	Mon 2/15/16	MI
624	**Spring 2015 Summative Assessments**	**424 d**	**Mon 3/16/15**	**Thu 11/10/16**	
625	**Requirements Documentation [Print Materials]**	**9 d**	**Wed 4/15/15**	**Mon 4/27/15**	
626	**Gather and document print materials production, distribution, and return requirements**	**4 d**	**Wed 4/15/15**	**Mon 4/20/15**	
627	Submit, review and revise requirements	2 d	Wed 4/15/15	Thu 4/16/15	MI, MDE
628	MDE sign-off	1 d	Fri 4/17/15	Fri 4/17/15	MDE
629	**Gather and document print materials production, distribution, and return QAP**	**3 d**	**Thu 4/16/15**	**Mon 4/20/15**	
630	Submit, review and revise QAP	2 d	Thu 4/16/15	Fri 4/17/15	MI, MDE
631	MDE sign-off	1 d	Mon 4/20/15	Mon 4/20/15	MDE
632	**Gather and document print materials post administration processing requirements**	**5 d**	**Tue 4/21/15**	**Mon 4/27/15**	

633	Submit, review and revise requirements	2 d	Tue 4/21/15	Wed 4/22/15	MI, MDE
634	MDE sign-off	1 d	Thu 4/23/15	Thu 4/23/15	MDE
635	**Gather and document print materials post administration processing QAP**	**3 d**	**Wed 4/22/15**	**Fri 4/24/15**	
636	Submit, review and revise requirements	2 d	Wed 4/22/15	Thu 4/23/15	MI, MDE
637	MDE sign-off	1 d	Fri 4/24/15	Fri 4/24/15	MDE

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ID	Task	Duration	Start	Finish	Resources
638	**Gather and document print materials post administration processing UAT**	**3 d**	**Thu 4/23/15**	**Mon 4/27/15**	
639	Submit, review and revise requirements	2 d	Thu 4/23/15	Fri 4/24/15	MI, MDE
640	MDE sign-off	1 d	Mon 4/27/15	Mon 4/27/15	MDE
641	**Print Materials Production**	**130 d**	**Mon 8/24/15**	**Fri 2/26/16**	
642	**Answer Documents**	**70 d**	**Tue 10/13/15**	**Fri 1/22/16**	
643	MI Develops Mock-ups	30 d	Tue 10/13/15	Mon 11/23/15	MI
644	Review and Revision (electronic and printer's proof)	20 d	Tue 11/24/15	Wed	MI MDE
645	MDE Sign-off	5 d	Thu 12/24/15	Thu 12/31/15	MDE
646	Print answer documents	15 d	Mon 1/4/16	Fri 1/22/16	MI
647	**Test Booklets**	**66 d**	**Tue 10/13/15**	**Mon 1/18/16**	
648	MDE provides MI & CMC² with test booklet POF files	1 d	Tue 10/13/15	Tue 10/13/15	MDE
649	MI conducts independent proofing	10 d	Wed	Tue 10/27/15	MI
650	MI provides MDE with print production samples	5 d	Wed	Tue 11/3/15	MI
651	Review and Revision	15 d	Wed 11/4/15	Tue 11/24/15	MI, MDE
652	MDE Sign-off	5 d	Wed	Thu 12/3/15	MDE
653	Print test booklets (standard and accommodated versions)	30 d	Fri 12/4/15	Mon 1/18/16	CMC²
654	**Accommodated Materials**	**56 d**	**Tue 10/13/15**	**Mon 1/4/16**	
655	MDE provides Accommodated Reader Script/Booklet	1 d	Tue 10/13/15	Tue 10/13/15	MDE
656	CMC² Creates Audio Master CD	20 d	Wed	Tue 11/10/15	CMC²
657	Review and Revision	15 d	Wed	Thu 12/3/15	MI, MDE
658	MDE Sign-off	5 d	Fri 12/4/15	Thu 12/10/15	MDE
659	CD duplication of accommodated audio CDs	15 d	Fri 12/11/15	Mon 1/4/16	CMC²
660	**Ancillary Test Materials**	**44 d**	**Tue 10/13/15**	**Tue 12/15/15**	
661	MDE provides MI with supporting materials (Picture Cards, Measuring Tools, Special Handling	1 d	Tue 10/13/15	Tue 10/13/15	MDE
662	MI generates proofs of supporting materials	15 d	Wed	Tue 11/3/15	MI
663	Review and Revision	10 d	Wed 11/4/15	Tue 11/17/15	MI, MDE
664	MDE Sign-off	3 d	Wed	Fri 11/20/15	MDE
665	MI produces supporting materials	5 d	Mon 11/23/15	Tue 12/1/15	MI
666	Prepare Material return envelopes	10 d	Wed 12/2/15	Tue 12/15/15	MI
667	**Paper and Pencil Administration TAMs/Test Directions**	**130 d**	**Mon 8/24/15**	**Fri 2/26/16**	
668	MI develops paper and Pencil Administration TAMs/Test Directions	50 d	Mon 8/24/15	Mon 11/2/15	MI
669	Review and Revision	20 d	Tue 11/3/15	Wed 12/2/15	MI, MDE
670	Prepare finalized documents (electronic and printer's proof)	5 d	Thu 12/3/15	Wed 12/9/15	MI
671	MDE Sign-off	5 d	Thu 12/10/15	Wed	MDE
672	Utilize spine coding system	3 d	Thu 12/17/15	Mon 12/21/15	MI
673	Electronic version of paper and Pencil TAM/Test Directions posted online	1 d	Fri 2/26/16	Fri 2/26/16	MI
674	Print Paper and Pencil TAM/Test Directions	15 d	Tue 12/22/15	Wed 1/13/16	MI
675	**Supporting Materials**	**110 d**	**Tue 9/22/15**	**Fri 2/26/16**	
676	MDE provides POF of Paper and Pencil TAMs	1 d	Tue 9/22/15	Tue 9/22/15	MDE
677	MI generates proofs of supporting materials	15 d	Wed 9/23/15	Tue 10/13/15	MI
678	Review and Revision	20 d	Wed	Tue 11/10/15	MI, MDE
679	Prepare finalized documents (electronic and printer's proof)	5 d	Wed	Tue 11/17/15	MI
680	MDE Sign-off	5 d	Wed	Tue 11/24/15	MDE
681	Utilize spine coding system	3 d	Wed	Tue 12/1/15	MI

682	Electronic version of paper and Pencil TAM/Test Directions posted online	1 d	Fri 2/26/16	Fri 2/26/16	MI
683	Print Paper and Pencil TAM/Test Directions	15 d	Wed 12/2/15	Tue 12/22/15	MI
684	**Accommodated Material Kits**	**69 d**	**Tue 11/17/15**	**Thu 2/25/16**	
685	Order Plastic Bags	10 d	Tue 11/17/15	Wed 12/2/15	MI
686	Print and QA coversheets for kits	5 d	Thu 12/31/15	Thu 1/7/16	MI

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ID	Task Name	Duration	Start	Finish	Resources
687	Assemble CD Kits	10 d	Fri 1/8/16	Thu 1/21/16	MI
688	Apply security barcodes to reader script booklets	5 d	Fri 1/22/16	Thu 1/28/16	MI
689	Assemble reader script kits	10 d	Fri 1/29/16	Thu 2/11/16	MI
690	Assemble DVD kits	10 d	Fri 2/12/16	Thu 2/25/16	MI
691	Apply security barcodes to Braille/Enlarged Print booklets	5 d	Tue 1/19/16	Mon 1/25/16	MI
692	Assemble Braille/Enlarged Print kits	10 d	Tue 1/26/16	Mon 2/8/16	MI
693	**Emergency Form Kits**	**5 d**	**Fri 1/29/16**	**Thu 2/4/16**	
694	Assemble reader script kits	5 d	Fri 1/29/16	Thu 2/4/16	MI
695	**Online Testing Documentation**	**110 d**	**Tue 9/22/15**	**Mon 2/29/16**	
696	**Online Administration TAMs/Test Directions**	**110 d**	**Tue 9/22/15**	**Mon 2/29/16**	
697	MI develops TAMs/Test Directions	40 d	Tue 9/22/15	Mon 11/16/15	MI
698	Review and revision	20 d	Tue 11/17/15	Wed	MI, MDE
699	prepare finalized documents (electronic and printer's proof)	5 d	Thu 12/17/15	Wed	MI
700	MDE-Sign-off	5 d	Thu 12/24/15	Thu 12/31/15	MDE
701	Print Online Administration TAMs	15 d	Mon 1/4/16	Fri 1/22/16	MI
702	Online Administration TAMs posted online	1 d	Fri 2/26/16	Mon 2/29/16	MDE
703	**Quick Start Guides/Checklists**	**70 d**	**Tue 11/17/15**	**Mon 2/29/16**	
704	MI develops Quick Start Guides/Checklists	30 d	Tue 11/17/15	Thu 12/31/15	MI
705	Review and revision	15 d	Mon 1/4/16	Fri 1/22/16	MI, MDE
706	MDE-Sign-off	3 d	Mon 1/25/16	Wed 1/27/16	MDE
707	Quick Start Guides/Checklists posted online	1 d	Fri 2/26/16	Mon 2/29/16	MI, MDE
708	**Training**	**140 d**	**Tue 11/17/15**	**Mon 6/6/16**	
709	**Installation & System Check**	**70 d**	**Tue 11/17/15**	**Mon 2/29/16**	
710	Review and revision of System Check	3 d	Tue 11/17/15	Thu 11/19/15	MI, MDE
711	MDE sign-off	1 d	Fri 11/20/15	Fri 11/20/15	MDE
712	Schools download and install Online Test Delivery System (executable file)	65 d	Tue 11/24/15	Mon 2/29/16	
713	**Student Web-based Practice**	**140 d**	**Tue 11/17/15**	**Mon 6/6/16**	
714	MI generates practice tests	20 d	Tue 11/17/15	Wed	MI
715	Practice items reviewed and revised	12 d	Thu 12/17/15	Tue 1/5/16	MI, MDE
716	MDE sign-off	2 d	Wed 1/6/16	Thu 1/7/16	MDE
717	Revise student practice test email	5 d	Fri 1/8/16	Thu 1/14/16	MI, MDE
718	Distribute student practice test email	1 d	Fri 1/15/16	Fri 1/15/16	MI
719	Practice test available to schools	0 d	Mon 1/18/16	Mon 1/18/16	MI
720	Students practice	100 d	Mon 1/18/16	Mon 6/6/16	
721	**Test Administrator Web-Based Practice**	**70 d**	**Mon 1/4/16**	**Fri 4/8/16**	
722	MI develops Test Administrator practice website	20 d	Mon 1/4/16	Fri 1/29/16	MI
723	MDE review of Test Administrator practice website	1 d	Mon 2/1/16	Mon 2/1/16	MDE
724	MI revision of Test Administrator practice website	5 d	Tue 2/2/16	Mon 2/8/16	MI
725	MDE sign-off	1 d	Tue 2/9/16	Tue 2/9/16	MDE
726	Test administrators practice	40 d	Mon 2/15/16	Fri 4/8/16	
727	**Training Videos/Webinars**	**51 d**	**Thu 12/17/15**	**Mon 2/29/16**	
728	**Training Video Content/Presentation Modes**	**7 d**	**Thu 12/17/15**	**Mon**	
729	Review and revision of video content/presentation modes	5 d	Thu 12/17/15	Wed	MI, MDE
730	MDE sign-off of video content/presentation modes	1 d	Mon 12/28/15	Mon 12/28/15	MDE

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731	**Assessment Training Sessions**	**8 d**	**Thu 2/18/16**	**Mon 2/29/16**	
732	TurboMeeting setup	2 d	Thu 2/18/16	Fri 2/19/16	MI
733	TurboMeeting practice	1 d	Fri 2/19/16	Fri 2/19/16	MI, MDE
734	Technology Coordinator Webinar practice and recording (online testing only)	1 d	Mon 2/22/16	Mon 2/22/16	MI, MDE
735	District Coordinator Webinar practice and recording (online and paper-and-pencil testing)	1 d	Tue 2/23/16	Tue 2/23/16	MI, MDE

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ID	Task	Duration	Start	Finish	Resources
736	Test Administrator Webinar practice and recording (online and paper-and-pencil testing)	1 d	Wed 2/24/16	Wed 2/24/16	MI, MDE
737	Live Technology Coordinator Webinar (online testing only)	1 d	Mon 2/29/16	Mon 2/29/16	MI, MDE
738	Live District Coordinator Webinar (online and paper-and-pencil testing)	1 d	Mon 2/29/16	Mon 2/29/16	MI, MDE
739	Live Test Administrator Webinar (online and paper-and-pencil testing)	1 d	Mon 2/29/16	Mon 2/29/16	MI, MDE
740	**Online Tools Tutorials (Training Videos)**	**10 d**	**Mon 1/4/16**	**Mon 1/18/16**	
741	**Online tools proctor video**	**10 d**	**Mon 1/4/16**	**Fri 1/15/16**	
742	Submit, review and revise proctor video	5 d	Mon 1/4/16	Fri 1/8/16	MI, MDE
743	MDE sign-off	5 d	Mon 1/11/16	Fri 1/15/16	MDE
744	**Online tools student video**	**10 d**	**Mon 1/4/16**	**Fri 1/15/16**	
745	Submit, review and revise student video	5 d	Mon 1/4/16	Fri 1/8/16	MI, MDE
746	MDE sign-off	5 d	Mon 1/11/16	Fri 1/15/16	MDE
747	Online tools proctor/student videos available to schools	0 d	Mon 1/18/16	Mon 1/18/16	
748	**Assessment Registration**	**110 d**	**Mon 1/4/16**	**Mon 6/6/16**	
749	**District and School Information**	**70 d**	**Mon 1/4/16**	**Fri 4/8/16**	
750	Districts/schools update contact information via Secure Site	70 d	Mon 1/4/16	Fri 4/8/16	
751	Initial district/school information pull	1 d	Mon 1/18/16	Mon 1/18/16	MI
752	Update pull	1 d	Tue 1/19/16	Tue 1/19/16	MI
753	Daily update pulls	58 d	Wed 1/20/16	Fri 4/8/16	MI
754	**Pre-ID (Paper and Pencil)**	**70 d**	**Mon 1/4/16**	**Fri 4/8/16**	
755	Districts/schools Pre-ID students via Secure Site	70 d	Mon 1/4/16	Fri 4/8/16	
756	Initial pull	1 d	Mon 1/18/16	Mon 1/18/16	MI
757	Update pull	1 d	Tue 1/19/16	Tue 1/19/16	MI
758	Daily update & new enrollee pulls	58 d	Wed 1/20/16	Fri 4/8/16	MI
759	**Online Test Delivery System Student/Test Session Registration**	**70 d**	**Mon 1/4/16**	**Fri 4/8/16**	
760	Districts/schools register students via Secure Site	70 d	Mon 1/4/16	Fri 4/8/16	
761	Initial pull	1 d	Mon 1/18/16	Mon 1/18/16	MI
762	Update pull	1 d	Tue 1/19/16	Tue 1/19/16	MI
763	Daily update and new enrollee registration pulls	58 d	Wed 1/20/16	Fri 4/8/16	MI
764	**Personal Needs Profile Information**	**70 d**	**Mon 1/4/16**	**Fri 4/8/16**	
765	Districts/schools update student personal needs profile via Secure Site	70 d	Mon 1/4/16	Fri 4/8/16	
766	Initial pull	1 d	Mon 1/18/16	Mon 1/18/16	MI
767	Update pull based on pre-established frequency	59 d	Tue 1/19/16	Fri 4/8/16	MI
768	**Material Ordering (Paper and Pencil)**	**110 d**	**Mon 1/4/16**	**Mon 6/6/16**	
769	Districts/schools order materials via Secure Site	70 d	Mon 1/4/16	Fri 4/8/16	
770	Initial material order pull and status update	1 d	Mon 1/18/16	Mon 1/18/16	MI
771	Additional (daily) material order pull	45 d	Mon 2/1/16	Fri 4/1/16	MI
772	Emergency material order pull	45 d	Mon 4/4/16	Mon 6/6/16	MI
773	**Packing of Print Materials**	**59 d**	**Tue 1/19/16**	**Fri 4/8/16**	
774	**Create Orders**	**18 d**	**Tue 1/19/16**	**Thu 2/11/16**	
775	**Initial Material Orders Window**	**18 d**	**Tue 1/19/16**	**Thu 2/11/16**	
776	MI pulls Initial Material Order Data	1 d	Tue 1/19/16	Tue 1/19/16	MI
777	MDE validates initial order data based on Pre-ID	2 d	Wed 1/20/16	Thu 1/21/16	MDE
778	Package materials by school/district	15 d	Fri 1/22/16	Thu 2/11/16	MI
779	Sort answer documents by grade, subject, class/group, etc.	15 d	Fri 1/22/16	Thu 2/11/16	MI

780	Provide Pre-ID labels for students identified on Secure Site	15 d	Fri 1/22/16	Thu 2/11/16	MI
781	Provide 10 blank sheets of labels	15 d	Fri 1/22/16	Thu 2/11/16	MI
782	**Distribution of Materials**	**50 d**	**Mon 2/1/16**	**Fri 4/8/16**	
783	**Initial Order Delivery**	**50 d**	**Mon 2/1/16**	**Fri 4/8/16**	
784	Ship Initial secure/non-secure standard test material orders	15 d	Fri 2/5/16	Thu 2/25/16	MI

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ID	Task	Duration	Start	Finish	Resources
785	Ship Initial accommodated test material orders	10 d	Fri 2/12/16	Thu 2/25/16	MI
786	MI provides MDE with daily inventory summary	45 d	Fri 2/5/16	Thu 4/7/16	MI
787	**Additional Order Delivery**	**45 d**	**Mon 2/1/16**	**Fri 4/1/16**	
788	Ship Additional secure/non-secure standard test material orders	45 d	Mon 2/1/16	Fri 4/1/16	MI
789	Ship Additional accommodated test material orders	45 d	Mon 2/1/16	Fri 4/1/16	MI
790	Ship Emergency Test materials to arrive in school/districts by MDE-specified dates	5 d	Mon 4/4/16	Fri 4/8/16	MI
791	**Production/Distribution of Return Kits**	**16 d**	**Tue 1/19/16**	**Tue 2/9/16**	
792	Create return kit orders from Initial Order Data	10 d	Tue 1/19/16	Mon 2/1/16	MI
793	Pack return kit orders	5 d	Tue 2/2/16	Mon 2/8/16	MI
794	Ship return kit orders	1 d	Tue 2/9/16	Tue 2/9/16	MI
795	**Testing Certification Processing UAT**	**18 d**	**Mon 3/7/16**	**Wed 3/30/16**	
796	Generate and QA Online Test Delivery System data test deck	15 d	Mon 3/7/16	Fri 3/25/16	MI
797	Generate and QA answer document data test deck	15 d	Mon 3/7/16	Fri 3/25/16	MI
798	Conduct Testing Certification UAT (push data to/pull data from MDE Secure Site)	2 d	Mon 3/28/16	Tue 3/29/16	MI, MDE
799	MDE sign-off	1 d	Wed 3/30/16	Wed 3/30/16	MDE
800	**Mock Data Student Growth Percentile UAT**	**26 d**	**Fri 3/20/15**	**Fri 4/24/15**	
801	Generate and QA Test Deck	10 d	Fri 3/20/15	Thu 4/2/15	MI
802	MDE review	3 d	Fri 4/3/15	Tue 4/7/15	MDE
803	MI revision	2 d	Wed 4/8/15	Thu 4/9/15	MI
804	MDE sign-off	1 d	Fri 4/10/15	Fri 4/10/15	MDE
805	Generate Student Growth Percentile Data	3 d	Mon 4/13/15	Wed 4/15/15	MI
806	QA Student Growth Percentile Data	2 d	Thu 4/16/15	Fri 4/17/15	MI
807	MDE review	2 d	Mon 4/20/15	Tue 4/21/15	MDE
808	MI revision	2 d	Wed 4/22/15	Thu 4/23/15	MI
809	MDE sign-off	1 d	Fri 4/24/15	Fri 4/24/15	MDE
810	**Mock Data Forensic Analysis UAT**	**26 d**	**Tue 6/9/15**	**Wed 7/15/15**	
811	Generate and QA test deck	10 d	Tue 6/9/15	Mon 6/22/15	MI
812	MDE review	3 d	Tue 6/23/15	Thu 6/25/15	MDE
813	MI revision	2 d	Fri 6/26/15	Mon 6/29/15	MI
814	MDE sign-off	1 d	Tue 6/30/15	Tue 6/30/15	MDE
815	Generate forensic analysis data	3 d	Wed 7/1/15	Mon 7/6/15	MI
816	QA forensic analysis data	2 d	Tue 7/7/15	Wed 7/8/15	MI
817	MDE review	2 d	Thu 7/9/15	Fri 7/10/15	MDE
818	MI revision	2 d	Mon 7/13/15	Tue 7/14/15	MI
819	MDE sign-off	1 d	Wed 7/15/15	Wed 7/15/15	MDE
820	**Michigan General Summative [CAT]**	**255 d**	**Thu 6/11/15**	**Fri 6/10/16**	
821	**CAT Engine**	**5 d**	**Thu 6/11/15**	**Wed 6/17/15**	
822	**Gather and document CAT engine requirements**	**5 d**	**Thu 6/11/15**	**Wed 6/17/15**	
823	Submit, review and revise requirements	2 d	Thu 6/11/15	Fri 6/12/15	MI, MDE
824	MDE sign-off	1 d	Mon 6/15/15	Mon 6/15/15	MDE
825	**Develop CAT engine QAP**	**3 d**	**Fri 6/12/15**	**Tue 6/16/15**	
826	Submit, review and revise requirements	2 d	Fri 6/12/15	Mon 6/15/15	MI, MDE
827	MDE sign-off	1 d	Tue 6/16/15	Tue 6/16/15	MDE
828	**Gather and document CAT UAT requirements**	**3 d**	**Mon 6/15/15**	**Wed 6/17/15**	

829	Submit, review and revise requirements	2 d	Mon 6/15/15	Tue 6/16/15	MI, MDE
830	MDE sign-off	1 d	Wed 6/17/15	Wed 6/17/15	MDE
831	**CAT System Configuration**	**106 d**	**Thu 6/18/15**	**Mon**	
832	MI configures CAT algorithms	30 d	Thu 6/18/15	Thu 7/30/15	MI
833	MDE reviews CAT algorithms	15 d	Fri 7/31/15	Thu 8/20/15	MDE

ID	Task Name	Duration	Start	Finish	Resources
834	MI conducts CAT simulation	20 d	Fri 7/31/15	Thu 8/27/15	MI
835	Simulation results to MDE	5 d	Fri 8/28/15	Thu 9/3/15	MI
836	MDE reviews results	15 d	Fri 9/4/15	Fri 9/25/15	MDE
837	MI revises algorithms and replicates simulation study	20 d	Mon 9/28/15	Fri 10/23/15	MI
838	MDE reviews results	15 d	Mon 10/26/15	Fri 11/13/15	MDE
839	MDE sign-off on CAT algorithms	1 d	Mon 11/16/15	Mon 11/16/15	MDE
840	**Test Development**	**76 d**	**Tue 9/1/15**	**Fri 12/18/15**	
841	**ELA 3-8, 11 (CAT)**	**76 d**	**Tue 9/1/15**	**Fri 12/18/15**	
842	**MI receives Test Packages and Test Maps**	**0 d**	**Tue 9/1/15**	**Tue 9/1/15**	**MI**
843	**MI renders items in Online Test Delivery System**	**40 d**	**Tue 9/1/15**	**Tue 10/27/15**	**MI**
844	**Item Rendering UATs**	**36 d**	**Wed** ___	**Fri 12/18/15**	
845	MDE review and revise items	20 d	Wed ___	Tue 11/24/15	MDE
846	MI imports revised items	15 d	Wed ___	Thu 12/17/15	MI
847	MDE sign-off	1 d	Fri 12/18/15	Fri 12/18/15	MDE
848	**Math 3-8, 11 (CAT)**	**76 d**	**Tue 9/1/15**	**Fri 12/18/15**	
849	**MI receives Test Packages and Test Maps**	**0 d**	**Tue 9/1/15**	**Tue 9/1/15**	**MI**
850	**MI renders items in Online Test Delivery System**	**40 d**	**Tue 9/1/15**	**Tue 10/27/15**	**MI**
851	**Item Rendering UATs**	**36 d**	**Wed** ___	**Fri 12/18/15**	
852	MDE review and revise items	20 d	Wed ___	Tue 11/24/15	MDE
853	MI imports revised items	15 d	Wed	Thu 12/17/15	MI
854	MDE sign-off	1 d	Fri 12/18/15	Fri 12/18/15	MDE
855	**Test Administration**	**40 d**	**Mon 4/11/16**	**Mon 6/6/16**	
856	**ELA 3-8, 11**	**40 d**	**Mon 4/11/16**	**Mon 6/6/16**	
857	**Math 3-8, 11**	**40 d**	**Mon 4/11/16**	**Mon 6/6/16**	
858	**Post-Administration Processing**	**43 d**	**Tue 4/12/16**	**Fri 6/10/16**	
859	Constructed responses exported for scoring	35 d	Tue 4/12/16	Tue 5/31/16	MI
860	MI generates student testing data	3 d	Tue 6/7/16	Thu 6/9/16	MI
861	MI provides MDE with student testing data	1 d	Fri 6/10/16	Fri 6/10/16	MI
862	**Michigan General Summative (fixed forms)**	**313 d**	**Mon 3/16/15**	**Mon 6/6/16**	
863	**Test Development**	**92 d**	**Thu 10/1/15**	**Thu 2/11/16**	
864	**Mathematics, 3-8, 11**	**92 d**	**Thu 10/1/15**	**Thu 2/11/16**	
865	**MI receives Test Packages and Test Maps**	**0 d**	**Thu 10/1/15**	**Thu 10/1/15**	**MI**
866	**MI renders items in Online Test Delivery System**	**40 d**	**Thu 10/1/15**	**Wed** ___	**MI**
867	Item Rendering UATs	26 d	Mon ___	Wed 1/6/16	
868	MDE review and revise items	15 d	Mon 11/30/15	Fri 12/18/15	MDE
869	MI imports revised items	10 d	Mon 12/21/15	Tue 1/5/16	MI
870	MDE sign-off	1 d	Wed 1/6/16	Wed 1/6/16	MDE
871	**MI assembles fixed forms**	**5 d**	**Thu 1/7/16**	**Wed 1/13/16**	**MI**
872	**Fixed Form UATs**	**21 d**	**Thu 1/14/16**	**Thu 2/11/16**	
873	MDE reviews forms	10 d	Thu 1/14/16	Wed 1/27/16	MDE
874	MI revises forms	10 d	Thu 1/28/16	Wed 2/10/16	MI, MDE
875	MDE sign-off	1 d	Thu 2/11/16	Thu 2/11/16	MDE
876	**ELA, 3-8, 11**	**92 d**	**Thu 10/1/15**	**Thu 2/11/16**	
877	**MI receives Test Packages and Test Maps**	**0 d**	**Thu 10/1/15**	**Thu 10/1/15**	**MI**

878	**MI renders items in Online Test Delivery System**	**40 d**	**Thu 10/1/15**	**Wed**	**MI**
879	**Item Rendering UATs**	**26 d**	**Mon**	**Wed 1/6/16**	
880	MDE review and revise items	15 d	Mon 11/30/15	Fri 12/18/15	MDE
881	MI imports revised items	10 d	Mon 12/21/15	Tue 1/5/16	MI
882	MDE sign-off	1 d	Wed 1/6/16	Wed 1/6/16	MDE

ID	Task	Duration	Start	Finish	Resources
883	**MI assembles fixed forms**	**5 d**	**Thu 1/7/16**	**Wed 1/13/16**	**MI**
884	**Fixed Form UATs**	**21 d**	**Thu 1/14/16**	**Thu 2/11/16**	
885	MDE reviews forms	10 d	Thu 1/14/16	Wed 1/27/16	MDE
886	MI revises forms	10 d	Thu 1/28/16	Wed 2/10/16	MI
887	MDE sign-off	1 d	Thu 2/11/16	Thu 2/11/16	MDE
888	**Science 4, 7, 11**	**92 d**	**Thu 10/1/15**	**Thu 2/11/16**	
889	**MI receives QTI item export file(s) and Test Maps**	**0 d**	**Thu 10/1/15**	**Thu 10/1/15**	**MI**
890	**MI renders items in Online Test Delivery System**	**40 d**	**Thu 10/1/15**	**Wed**	**MI**
891	**Item Rendering UATs**	**26 d**	**Mon**	**Wed 1/6/16**	
892	MDE review and revise items	15 d	Mon 11/30/15	Fri 12/18/15	MDE
893	MI imports revised items	10 d	Mon 12/21/15	Tue 1/5/16	MI
894	MDE sign-off	1 d	Wed 1/6/16	Wed 1/6/16	MDE
895	**MI assembles fixed forms**	**5 d**	**Thu 1/7/16**	**Wed 1/13/16**	**MI**
896	**Fixed Form UATs**	**21 d**	**Thu 1/14/16**	**Thu 2/11/16**	
897	MDE reviews forms	10 d	Thu 1/14/16	Wed 1/27/16	MDE
898	MI revises forms	10 d	Thu 1/28/16	Wed 2/10/16	MI, MDE
899	MDE sign-off	1 d	Thu 2/11/16	Thu 2/11/16	MDE
900	**Social Studies 5, 8, 11**	**92 d**	**Thu 10/1/15**	**Thu 2/11/16**	
901	**MI receives QTI item export file(s) and Test Maps**	**0 d**	**Thu 10/1/15**	**Thu 10/1/15**	**MI**
902	**MI renders items in Online Test Delivery System**	**40 d**	**Thu 10/1/15**	**Wed**	**MI**
903	**Item Rendering UATs**	**26 d**	**Mon**	**Wed 1/6/16**	
904	MDE review and revise items	15 d	Mon 11/30/15	Fri 12/18/15	MDE
905	MI imports revised items	10 d	Mon 12/21/15	Tue 1/5/16	MI
906	MDE sign-off	1 d	Wed 1/6/16	Wed 1/6/16	MDE
907	**MI assembles fixed forms**	**5 d**	**Thu 1/7/16**	**Wed 1/13/16**	**MI**
908	**Fixed Form UATs**	**21 d**	**Thu 1/14/16**	**Thu 2/11/16**	
909	MDE reviews forms	10 d	Thu 1/14/16	Wed 1/27/16	MDE
910	MI revises forms	10 d	Thu 1/28/16	Wed 2/10/16	MI
911	MDE sign-off	1 d	Thu 2/11/16	Thu 2/11/16	MDE
912	**Online Test Delivery System Data UATs**	**246 d**	**Mon 3/16/15**	**Wed 3/2/16**	
913	**Online Test Delivery System Virtual Scan/Edit UAT**	**14 d**	**Fri 2/12/16**	**Wed 3/2/16**	
914	Test case data pushed to MDE No Barcode process	1 d	Fri 2/12/16	Fri 2/12/16	MI
915	Generate spreadsheets for test case entry	3 d	Fri 2/12/16	Tue 2/16/16	MI
916	MI enters test case data via tester station, proctor website	3 d	Mon 2/15/16	Wed 2/17/16	MI
917	MI generates expected data printouts	3 d	Thu 2/18/16	Mon 2/22/16	MI
918	Test data and expected data printouts to MDE	1 d	Tue 2/23/16	Tue 2/23/16	MI
919	MDE compares test data to expected data	3 d	Wed 2/24/16	Fri 2/26/16	MDE
920	Resolve issues, if necessary	2 d	Mon 2/29/16	Tue 3/1/16	MI
921	MDE sign-off	1 d	Wed 3/2/16	Wed 3/2/16	MDE
922	**Machine Scoring and Student Testing Data UATs**	**7 d**	**Mon 3/16/15**	**Tue 3/24/15**	
923	MI provides MDE with Student testing data	1 d	Mon 3/16/15	Mon 3/16/15	MI
924	MDE review	3 d	Tue 3/17/15	Thu 3/19/15	MDE
925	MI revision	2 d	Fri 3/20/15	Mon 3/23/15	MI
926	MDE sign-off	1 d	Tue 3/24/15	Tue 3/24/15	MDE

927	**Production Data Sampling Plan UAT**	**8 d**	**Mon 3/14/16**	**Wed 3/23/16**	
928	MI generates sampling plan	3 d	Mon 3/14/16	Wed 3/16/16	MI
929	MDE reviews sampling plan	2 d	Thu 3/17/16	Fri 3/18/16	MDE
930	MI revises sampling plan	2 d	Mon 3/21/16	Tue 3/22/16	MI
931	MDE sign-off	1 d	Wed 3/23/16	Wed 3/23/16	MDE

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ID	Task Name	Duration	Start	Finish	Resources
932	**Test Administration**	**40 d**	**Mon 4/11/16**	**Mon 6/6/16**	
933	Mathematics 3-8, 11	40 d	Mon 4/11/16	Mon 6/6/16	
934	ELA 3-8, 11	40 d	Mon 4/11/16	Mon 6/6/16	
935	Science 4, 7, 11	40 d	Mon 4/11/16	Mon 6/6/16	
936	Social Studies 5, 8, 11	40 d	Mon 4/11/16	Mon 6/6/16	
937	**Michigan MI-Access Functional Independence Summative (fixed forms)**	**313 d**	**Mon 3/16/15**	**Mon 6/6/16**	
938	Gather and document MI-Access FI online answer document requirements	3 d	Mon 6/15/15	Wed 6/17/15	MI, MDE
939	Submit, review and revise requirements	2 d	Mon 6/15/15	Tue 6/16/15	MI, MDE
940	MDE sign-off	1 d	Wed 6/17/15	Wed 6/17/15	MDE
941	**Test Development**	**92 d**	**Thu 10/1/15**	**Thu 2/11/16**	
942	**ELA 3-8, 11**	**92 d**	**Thu 10/1/15**	**Thu 2/11/16**	
943	**MI receives Test Packages and Test Maps**	**0 d**	**Thu 10/1/15**	**Thu 10/1/15**	**MDE**
944	**MI renders items in Online Test Delivery System**	**40 d**	**Thu 10/1/15**	**Wed ___**	**MI**
945	**Item Rendering UATs**	**26 d**	**Mon ___**	**Wed 1/6/16**	
946	MDE review and revise items	15 d	Mon 11/30/15	Fri 12/18/15	MDE
947	MI imports revised items	10 d	Mon 12/21/15	Tue 1/5/16	MI
948	MDE sign-off	1 d	Wed 1/6/16	Wed 1/6/16	MDE
949	**MI assembles fixed forms**	**5 d**	**Thu 1/7/16**	**Wed 1/13/16**	
950	**Fixed Form UATs**	**21 d**	**Thu 1/14/16**	**Thu 2/11/16**	
951	MDE reviews forms	10 d	Thu 1/14/16	Wed 1/27/16	MDE
952	MI revises forms	10 d	Thu 1/28/16	Wed 2/10/16	MI
953	MDE sign-off	1 d	Thu 2/11/16	Thu 2/11/16	MDE
954	**Math 3-8, 11**	**92 d**	**Thu 10/1/15**	**Thu 2/11/16**	
955	**MI receives Test Packages and Test Maps**	**0 d**	**Thu 10/1/15**	**Thu 10/1/15**	**MDE**
956	**MI renders items in Online Test Delivery System**	**40 d**	**Thu 10/1/15**	**Wed**	**MI**
957	**Item Rendering UATs**	**26 d**	**Mon**	**Wed 1/6/16**	
958	MDE review and revise items	15 d	Mon 11/30/15	Fri 12/18/15	MDE
959	MI imports revised items	10 d	Mon 12/21/15	Tue 1/5/16	MI
960	MDE sign-off	1 d	Wed 1/6/16	Wed 1/6/16	MDE
961	**MI assembles fixed forms**	**5 d**	**Thu 1/7/16**	**Wed 1/13/16**	
962	**Fixed Form UATs**	**21 d**	**Thu 1/14/16**	**Thu 2/11/16**	
963	MDE reviews forms	10 d	Thu 1/14/16	Wed 1/27/16	MDE
964	MI revises forms	10 d	Thu 1/28/16	Wed 2/10/16	MI
965	MDE sign-off	1 d	Thu 2/11/16	Thu 2/11/16	MDE
966	**Science 4, 7, 11**	**92 d**	**Thu 10/1/15**	**Thu 2/11/16**	
967	**MI receives QTI item export file(s) and Test Maps**	**0 d**	**Thu 10/1/15**	**Thu 10/1/15**	**MDE**
968	**MI renders items in Online Test Delivery System**	**40 d**	**Thu 10/1/15**	**Wed ___**	**MI**
969	**Item Rendering UATs**	**26 d**	**Mon ___**	**Wed 1/6/16**	
970	MDE review and revise items	15 d	Mon 11/30/15	Fri 12/18/15	MDE
971	MI imports revised items	10 d	Mon 12/21/15	Tue 1/5/16	MI
972	MDE sign-off	1 d	Wed 1/6/16	Wed 1/6/16	MDE
973	**MI assembles fixed forms**	**5 d**	**Thu 1/7/16**	**Wed 1/13/16**	
974	**Fixed Form UATs**	**21 d**	**Thu 1/14/16**	**Thu 2/11/16**	
975	MDE reviews forms	10 d	Thu 1/14/16	Wed 1/27/16	MDE

976	MI revises forms	10 d	Thu 1/28/16	Wed 2/10/16	MI
977	MDE sign-off	1 d	Thu 2/11/16	Thu 2/11/16	MDE
978	**Social Studies 5, 8, 11**	**92 d**	**Thu 10/1/15**	**Thu 2/11/16**	
979	**MI receives QTI item export file(s) and Test Maps**	**0 d**	**Thu 10/1/15**	**Thu 10/1/15**	**MDE**
980	**MI renders items in Online Test Delivery System**	**40 d**	**Thu 10/1/15**	**Wed 11/25/15**	**MI**

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ID	Task Name	Duration	Start	Finish	Resources
981	**Item Rendering UATs**	**26 d**	**Mon** ...	**Wed 1/6/16**	
982	MDE review and revise items	15 d	Mon 11/30/15	Fri 12/18/15	MDE
983	MI imports revised items	10 d	Mon 12/21/15	Tue 1/5/16	MI
984	MDE sign-off	1 d	Wed 1/6/16	Wed 1/6/16	MDE
985	**MI assembles fixed forms**	**5 d**	**Thu 1/7/16**	**Wed 1/13/16**	
986	**Fixed Form UATs**	**21 d**	**Thu 1/14/16**	**Thu 2/11/16**	
987	MDE reviews forms	10 d	Thu 1/14/16	Wed 1/27/16	MDE
988	MI revises forms	10 d	Thu 1/28/16	Wed 2/10/16	MI
989	MDE sign-off	1 d	Thu 2/11/16	Thu 2/11/16	MDE
990	**Online Test Delivery System Data UATs**	**246 d**	**Mon 3/16/15**	**Wed 3/2/16**	
991	Test case data pushed to MDE No Barcode process	1 d	Fri 2/12/16	Fri 2/12/16	MI
992	**Online Test Delivery System Virtual Scan/Edit UAT**	**14 d**	**Fri 2/12/16**	**Wed 3/2/16**	
993	Generate spreadsheets for test case entry	3 d	Fri 2/12/16	Tue 2/16/16	MI
994	MI enters test case data via tester station, proctor website	3 d	Mon 2/15/16	Wed 2/17/16	MI
995	MI generates expected data printouts	3 d	Thu 2/18/16	Mon 2/22/16	MI
996	Test data and expected data printouts to MDE	1 d	Tue 2/23/16	Tue 2/23/16	MI
997	MDE compares test data to expected data	3 d	Wed 2/24/16	Fri 2/26/16	MDE
998	Resolve issues, if necessary	2 d	Mon 2/29/16	Tue 3/1/16	MI
999	MDE sign-off	1 d	Wed 3/2/16	Wed 3/2/16	MDE
1000	**Machine Scoring and Student Testing Data UATs**	**7 d**	**Mon 3/16/15**	**Tue 3/24/15**	
1001	MI provides MDE with Student testing data	1 d	Mon 3/16/15	Mon 3/16/15	MI
1002	MDE review	3 d	Tue 3/17/15	Thu 3/19/15	MDE
1003	MI revision	2 d	Fri 3/20/15	Mon 3/23/15	MI
1004	MDE Sign-off	1 d	Tue 3/24/15	Tue 3/24/15	MDE
1005	**Production Data Sampling Plan UAT**	**8 d**	**Mon 3/14/16**	**Wed 3/23/16**	
1006	MI generates sampling plan	3 d	Mon 3/14/16	Wed 3/16/16	MI
1007	MDE reviews sampling plan	2 d	Thu 3/17/16	Fri 3/18/16	MDE
1008	MI revises sampling plan	2 d	Mon 3/21/16	Tue 3/22/16	MI
1009	MDE sign-off	1 d	Wed 3/23/16	Wed 3/23/16	MDE
1010	**Test Administration**	**40 d**	**Mon 4/11/16**	**Mon 6/6/16**	
1011	ELA 3-8, 11	40 d	Mon 4/11/16	Mon 6/6/16	
1012	Math 3-8, 11	40 d	Mon 4/11/16	Mon 6/6/16	
1013	Science 4,7, 11	40 d	Mon 4/11/16	Mon 6/6/16	
1014	Social Studies 5, 8, 11	40 d	Mon 4/11/16	Mon 6/6/16	
1015	**Michigan MI-Access Participation and Supported Independence Summative**	**26 d**	**Tue 9/1/15**	**Wed 10/7/15**	
1016	**Online Answer Document Development**	**26 d**	**Tue 9/1/15**	**Wed 10/7/15**	
1017	MI receives test blueprints for online answer document development	0 d	Tue 9/1/15	Tue 9/1/15	MDE
1018	MI develops online answer document	15 d	Tue 9/1/15	Tue 9/22/15	MI
1019	**Online Answer Document UAT**	**11 d**	**Wed 9/23/15**	**Wed 10/7/15**	
1020	MDE review	5 d	Wed 9/23/15	Tue 9/29/15	MDE
1021	MI revision	5 d	Wed 9/30/15	Tue 10/6/15	MI
1022	MDE sign-off	1 d	Wed 10/7/15	Wed 10/7/15	MDE
1023	**Testing Certification Process**	**45 d**	**Mon 4/11/16**	**Mon 6/13/16**	
1024	Daily update of Online Test Delivery System student test session completion data to MDE Secure	40 d	Mon 4/11/16	Mon 6/6/16	MI

1025	Daily update of Online Test Delivery System student test session response data to MDE Secure Site	40 d	Mon 4/11/16	Mon 6/6/16	MI
1026	Daily update of scanned student answer document data to MDE Secure Site	35 d	Mon 4/25/16	Mon 6/13/16	MI
1027	Daily pull of District/School issues from MDE Secure Site	40 d	Mon 4/11/16	Mon 6/6/16	MI
1028	Daily update of District/School issue resolution to MDE Secure Site	40 d	Mon 4/11/16	Mon 6/6/16	MI
1029	**Online Test Delivery System Test Session Data processing**	**56 d**	**Mon 4/11/16**	**Tue 6/28/16**	

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ID	Task Name	Duration	Start	Finish	Resources
1030	Test session data electronic reports available to MDE	0 d	Mon 4/11/16	Mon 4/11/16	MI
1031	Test session data electronic reports updated continuously	40 d	Mon 4/11/16	Mon 6/6/16	MI
1032	MI generates test session data Summary Report	10 d	Tue 6/7/16	Mon 6/20/16	MI
1033	MI provides MDE with test session data summary report	1 d	Tue 6/28/16	Tue 6/28/16	MI
1034	**Post-Administration Processing**	**128 d**	**Mon 4/18/16**	**Mon**	
1035	**Online Test Constructed Response Data**	**6 d**	**Tue 6/7/16**	**Tue 6/14/16**	
1036	Online Test Delivery System Constructed response data exported for scoring	1 d	Tue 6/7/16	Tue 6/7/16	MI
1037	Import data into scoring system	5 d	Wed 6/8/16	Tue 6/14/16	MI
1038	**Print Materials Receiving**	**128 d**	**Mon 4/18/16**	**Mon**	
1039	**Districts Return Material**	**37 d**	**Mon 4/25/16**	**Wed 6/15/16**	
1040	Districts Ship Assessment Materials	34 d	Mon 4/25/16	Fri 6/10/16	
1041	Assessment Materials Received	34 d	Thu 4/28/16	Wed 6/15/16	
1042	**Log-in and Sort**	**35 d**	**Thu 4/28/16**	**Thu 6/16/16**	
1043	Answer Folders Placed in Tote Boxes	34 d	Thu 4/28/16	Wed 6/15/16	MI
1044	Tote Boxes Scanned into System	34 d	Fri 4/29/16	Thu 6/16/16	MI
1045	Materials Logged In by Receiving	34 d	Fri 4/29/16	Thu 6/16/16	MI
1046	Materials Sorted	34 d	Fri 4/29/16	Thu 6/16/16	MI
1047	Tote Boxes Delivered to Scanning	34 d	Fri 4/29/16	Thu 6/16/16	MI
1048	**Scanning**	**43 d**	**Mon 4/18/16**	**Thu 6/16/16**	
1049	Meet w/Data Correction team	1 d	Mon 4/18/16	Mon 4/18/16	MI
1050	Tote Boxes Scanned into System	34 d	Fri 4/29/16	Thu 6/16/16	MI
1051	Answer Documents Cut for Scanning	34 d	Fri 4/29/16	Thu 6/16/16	MI
1052	Answer Documents Image Scanned	34 d	Fri 4/29/16	Thu 6/16/16	MI
1053	Batch Edit	34 d	Fri 4/29/16	Thu 6/16/16	MI
1054	Data Correction	34 d	Fri 4/29/16	Thu 6/16/16	MI
1055	Image & Scan Data imported data into scoring system	34 d	Fri 4/29/16	Thu 6/16/16	MI
1056	Scanning of Unused Grade 3 Answer Documents	34 d	Fri 4/29/16	Thu 6/16/16	MI
1057	**Final Cleanup of Boxes Received**	**34 d**	**Fri 4/29/16**	**Thu 6/16/16**	
1058	NonScorable Materials Checked	34 d	Fri 4/29/16	Thu 6/16/16	MI
1059	Scorable Materials Pulled from NonScorable Box & Prepped for Scan	34 d	Fri 4/29/16	Thu 6/16/16	MI
1060	NonScorable Materials Prepped for Security Check-in	34 d	Fri 4/29/16	Thu 6/16/16	MI
1061	**Security Check-In**	**45 d**	**Fri 4/29/16**	**Fri 7/1/16**	
1062	Test Booklets Scanned for Security Check-in	34 d	Fri 4/29/16	Thu 6/16/16	MI
1063	Security report data generated and QA'ed	3 d	Fri 6/17/16	Tue 6/21/16	MI
1064	MI generates a list of issues for investigation	1 d	Wed 6/22/16	Wed 6/22/16	MI
1065	MI investigates issues	5 d	Thu 6/23/16	Wed 6/29/16	MI
1066	Update security report data with Call Center issues collected during initial receipt/return of materials	2 d	Thu 6/30/16	Fri 7/1/16	MI
1067	**Initial Security Reports**	**37 d**	**Tue 6/7/16**	**Thu 7/28/16**	
1068	Revise/update letters to district and building coordinators	2 d	Tue 6/7/16	Wed 6/8/16	MI
1069	Revise/update district summary page	3 d	Tue 6/7/16	Thu 6/9/16	MI
1070	Revise/update one-per-page summary for schools	3 d	Fri 6/10/16	Tue 6/14/16	MI
1071	Revise page for additional information/comments	1 d	Wed 6/15/16	Wed 6/15/16	MI
1072	Generate and QA initial security reports	3 d	Thu 6/16/16	Mon 6/20/16	MI
1073	Pack and ship initial security reports	5 d	Tue 6/21/16	Mon 6/27/16	MI

1074	Schools and districts respond	20 d	Tue 6/28/16	Tue 7/26/16	MI
1075	Update security report data	2 d	Wed 7/27/16	Thu 7/28/16	MI
1076	**Follow Up Security Reports**	**56 d**	**Fri 7/29/16**	**Mon**	
1077	Review list of schools who fail to respond to Initial security report	1 d	Fri 7/29/16	Fri 7/29/16	MI
1078	Revise/update follow up letters to district and building coordinators	2 d	Mon 8/1/16	Tue 8/2/16	MI

ID	Task	Duration	Start	Finish	Resources
1079	Print and QA follow-up security reports	2 d	Wed 8/3/16	Thu 8/4/16	MI
1080	Pack and ship follow-up security reports	2 d	Fri 8/5/16	Mon 8/8/16	MI
1081	Schools and districts respond	10 d	Tue 8/9/16	Mon 8/22/16	MI
1082	Update security report data	2 d	Tue 8/23/16	Wed 8/24/16	MI
1083	Provide Final Missing Materials Report	3 d	Thu 8/25/16	Mon 8/29/16	MI
1084	Provide security check-in data to MDE as an SQL table	3 d	Tue 8/30/16	Thu 9/1/16	MI
1085	Secure permission to recycle used test materials	3 d	Thu 10/13/16	Mon 10/17/16	MI
1086	**Collecting Fees**	**40 d**	**Mon 6/20/16**	**Mon 8/15/16**	
1087	Validate missing barcode data	1 d	Mon 6/20/16	Mon 6/20/16	MI
1088	Review emergency form pay liability data	1 d	Tue 6/21/16	Tue 6/21/16	MI
1089	Review late return data	1 d	Wed 6/22/16	Wed 6/22/16	MI
1090	Generate status spreadsheet	1 d	Thu 6/23/16	Thu 6/23/16	MI
1091	Revise letters, invoices	2 d	Fri 6/24/16	Mon 6/27/16	MI
1092	Generate letters, invoices, shipping labels	3 d	Tue 6/28/16	Thu 6/30/16	MI
1093	Pack and ship	5 d	Fri 7/1/16	Fri 7/8/16	MI
1094	Notify accounts receivable	1 d	Mon 7/11/16	Mon 7/11/16	MI
1095	Receive checks, update status spreadsheet	20 d	Tue 7/12/16	Mon 8/8/16	MI
1096	Call Center contacts superintendents of delinquent districts	5 d	Tue 8/9/16	Mon 8/15/16	MI
1097	**Scoring**	**336 d**	**Thu 4/23/15**	**Wed 8/17/16**	
1098	Provide scoring system to translate responses into a score	60 d	Tue 5/19/15	Wed 8/12/15	MI
1099	Provide MDE with student score response data and raw item score data	5 d	Fri 6/17/16	Thu 6/23/16	MI
1100	Apply MDE approved adaptive scoring model	5 d	Fri 6/17/16	Thu 6/23/16	MI
1101	Provide all scoring information to MDE and independent evaluators/auditors	3 d	Fri 6/24/16	Tue 6/28/16	MI
1102	Provide the QA monitoring process	3 d	Wed 6/29/16	Fri 7/1/16	MI
1103	Mock Scoring UAT	5 d	Tue 7/5/16	Mon 7/11/16	MI
1104	**Scoring for Constructed Responses**	**30 d**	**Tue 6/7/16**	**Tue 7/19/16**	
1105	**Rangefinding**	**30 d**	**Tue 6/7/16**	**Tue 7/19/16**	
1106	**Preparation**	**24 d**	**Tue 6/7/16**	**Mon 7/11/16**	
1107	**Make Meeting Arrangements**	**10 d**	**Thu 6/16/16**	**Wed 6/29/16**	
1108	Invite committee members	1 d	Thu 6/16/16	Thu 6/16/16	MI
1109	Organize hotel rooms for committee members	6 d	Fri 6/17/16	Fri 6/24/16	MI
1110	Organize catering	3 d	Mon 6/27/16	Wed 6/29/16	MI
1111	**Create Rangefinding Sets**	**24 d**	**Tue 6/7/16**	**Mon 7/11/16**	
1112	MI set up of rangefinding packet creation tool	5 d	Tue 6/7/16	Mon 6/13/16	MI
1113	Select field test papers for rangefinding sample	15 d	Tue 6/14/16	Tue 7/5/16	MI
1114	MDE approves rangefinding sets	1 d	Wed 7/6/16	Wed 7/6/16	MI, MDE
1115	Print rangefinding sets for meeting	3 d	Thu 7/7/16	Mon 7/11/16	MI, MDE
1116	**Rangefinding Meeting**	**3 d**	**Fri 7/15/16**	**Tue 7/19/16**	**MI, MDE**
1117	**AI Scoring**	**300 d**	**Thu 4/23/15**	**Mon 6/27/16**	
1118	MI identifies training papers	10 d	Thu 4/23/15	Wed 5/6/15	MI
1119	Build and validate AI scoring Models	40 d	Thu 5/7/15	Thu 7/2/15	MI
1120	**Mock AI scoring UAT**	**6 d**	**Mon 7/6/15**	**Mon 7/13/15**	
1121	MI conducts Mock AI scoring UAT	3 d	Mon 7/6/15	Wed 7/8/15	MI
1122	MDE review	2 d	Thu 7/9/15	Fri 7/10/15	MI

1123	MDE sign-off	1 d	Mon 7/13/15	Mon 7/13/15	MDE
1124	Student responses available to AI scoring engine	1 d	Fri 6/17/16	Fri 6/17/16	MI
1125	Score responses with AI engine	5 d	Mon 6/20/16	Fri 6/24/16	MI
1126	Scores prepared for import into scoring/reporting system	1 d	Mon 6/27/16	Mon 6/27/16	MI
1127	**Handscoring of Constructed Response Items**	**46 d**	**Tue 6/14/16**	**Wed 8/17/16**	

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ID	Task Name	Duration	Start	Finish	Resources
1128	**Operational Items**	**38 d**	**Tue 6/14/16**	**Fri 8/5/16**	
1129	Handscoring staff completes and submits PCC checklist	1 d	Tue 6/14/16	Tue 6/14/16	MI
1130	Provide FT distribution stats to handscoring staff	1 d	Wed 6/15/16	Wed 6/15/16	MI
1131	Prepare Training Materials	4 d	Thu 6/16/16	Tue 6/21/16	MI
1132	Team Leader Training	2 d	Mon 6/27/16	Tue 6/28/16	MI
1133	Reader Training	5 d	Wed 6/29/16	Wed 7/6/16	MI
1134	Handscoring	20 d	Thu 7/7/16	Wed 8/3/16	MI
1135	Handscoring Data Exported	1 d	Thu 8/4/16	Thu 8/4/16	MI
1136	Handscoring Reports Provided to MDE	1 d	Fri 8/5/16	Fri 8/5/16	MI
1137	**Field Test Items**	**21 d**	**Wed 7/20/16**	**Wed 8/17/16**	
1138	Prepare Training Materials	2 d	Wed 7/20/16	Thu 7/21/16	MI
1139	Determine FT priority list	1 d	Fri 7/22/16	Fri 7/22/16	MI
1140	Reader Training and Handscoring	10 d	Mon 7/25/16	Fri 8/5/16	MI
1141	Archive final PCC reports	1 d	Mon 8/8/16	Mon 8/8/16	MI
1142	Write CR Item Evaluations	8 d	Mon 8/8/16	Wed 8/17/16	MI
1143	Scoring leadership reviews CR Item Evaluations	2 d	Wed 8/10/16	Thu 8/11/16	MI
1144	Item Evaluations to MDE	1 d	Fri 8/12/16	Fri 8/12/16	MI
1145	**Production Data Forensic Analysis UAT**	**278 d**	**Wed 6/3/15**	**Wed 7/6/16**	
1146	**Gather and document forensic analysis requirements**	**4 d**	**Wed 6/3/15**	**Mon 6/8/15**	
1147	Submit, review and revise requirements	2 d	Wed 6/3/15	Thu 6/4/15	MI, MDE
1148	MDE sign-off	1 d	Fri 6/5/15	Fri 6/5/15	MDE
1149	**Gather and document forensic analysis UAT requirements**	**3 d**	**Thu 6/4/15**	**Mon 6/8/15**	
1150	Submit, review and revise requirements	2 d	Thu 6/4/15	Fri 6/5/15	MI, MDE
1151	MDE sign-off	1 d	Mon 6/8/15	Mon 6/8/15	MDE
1152	Generate production forensic analysis data	5 d	Fri 6/17/16	Thu 6/23/16	MI
1153	QA forensic analysis data	3 d	Fri 6/24/16	Tue 6/28/16	MI
1154	MDE review	2 d	Wed 6/29/16	Thu 6/30/16	MDE
1155	MI revision	2 d	Fri 7/1/16	Tue 7/5/16	MI
1156	MDE sign-off	1 d	Wed 7/6/16	Wed 7/6/16	MDE
1157	**Summary Reporting**	**69 d**	**Fri 8/5/16**	**Thu 11/10/16**	
1158	**Mock Reporting UAT**	**5 d**	**Fri 8/5/16**	**Thu 8/11/16**	
1159	MI conducts mock reporting UAT	2 d	Fri 8/5/16	Mon 8/8/16	MI
1160	MDE review	2 d	Tue 8/9/16	Wed 8/10/16	MDE
1161	MDE sign-off	1 d	Thu 8/11/16	Thu 8/11/16	MDE
1162	**Production Reporting UAT**	**5 d**	**Fri 8/5/16**	**Thu 8/11/16**	
1163	MI conducts production reporting UAT	2 d	Fri 8/5/16	Mon 8/8/16	MI
1164	MDE review	2 d	Tue 8/9/16	Wed 8/10/16	MDE
1165	MDE sign-off	1 d	Thu 8/11/16	Thu 8/11/16	MDE
1166	**Report Hosting UAT**	**6 d**	**Fri 8/12/16**	**Fri 8/19/16**	
1167	Reports hosted	1 d	Fri 8/12/16	Fri 8/12/16	MI
1168	Verify IP filter functionality	1 d	Mon 8/15/16	Mon 8/15/16	MI
1169	Verify response times are acceptable	1 d	Mon 8/15/16	Mon 8/15/16	MI
1170	MDE sign-off	1 d	Tue 8/16/16	Tue 8/16/16	MDE
1171	Districts and schools review PDF reports	3 d	Wed 8/17/16	Fri 8/19/16	

1172	**Production Data Files**	**16 d**	**Fri 8/12/16**	**Fri 9/2/16**	
1173	Generate and QA student data file	8 d	Fri 8/12/16	Tue 8/23/16	MI
1174	Review and revise student data file	5 d	Wed 8/24/16	Tue 8/30/16	MI,MDE
1175	MDE sign-off	3 d	Wed 8/31/16	Fri 9/2/16	MDE
1176	Generate and QA aggregate data file	8 d	Fri 8/12/16	Tue 8/23/16	MI

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ID	Task	Duration	Start	Finish	Resources
1177	Review and revise aggregate data file	5 d	Wed 8/24/16	Tue 8/30/16	MI,MDE
1178	MDE sign-off	3 d	Wed 8/31/16	Fri 9/2/16	MDE
1179	**Student-level PDF Reports**	**8 d**	**Tue 9/6/16**	**Thu 9/15/16**	
1180	Generate and QA student-level report data files for print contractor	8 d	Tue 9/6/16	Thu 9/15/16	MI
1181	Generate and QA address file for print contractor	3 d	Tue 9/6/16	Thu 9/8/16	MI
1182	Push student-level report data files to print contractor	1 d	Fri 9/9/16	Fri 9/9/16	MI
1183	Print contractor generates and hosts student-level PDF reports	1 d	Mon 9/12/16	Mon 9/12/16	MI
1184	**Aggregate PDF Reports**	**12 d**	**Tue 9/6/16**	**Wed 9/21/16**	
1185	Generate and QA aggregate report data files for print contractor	8 d	Tue 9/6/16	Thu 9/15/16	MI
1186	Push aggregate report data files to print contractor	3 d	Fri 9/16/16	Tue 9/20/16	MI
1187	Print contractor generates and hosts aggregate PDF reports	1 d	Wed 9/21/16	Wed 9/21/16	MI
1188	**Paper Reports Processed and Printed**	**19 d**	**Fri 9/16/16**	**Wed**	
1189	Pull green option data	1 d	Fri 9/16/16	Fri 9/16/16	MI
1190	Generate and QA green option file	3 d	Mon 9/19/16	Wed 9/21/16	MI
1191	Push green option data to print contractor	1 d	Thu 9/22/16	Thu 9/22/16	MI
1192	Paper Reports Processed	3 d	Fri 9/23/16	Tue 9/27/16	MI
1193	Print Reports	5 d	Wed 9/28/16	Tue 10/4/16	MI
1194	Ship Reports	5 d	Wed 10/5/16	Tue 10/11/16	MI
1195	Reports Arrive in Districts	1 d	Wed	Wed	
1196	**Second Run of Printed Reports - Correct errors only**	**21 d**	**Thu 10/13/16**	**Thu 11/10/16**	
1197	Call Center collects requests for printed reports	10 d	Thu 10/13/16	Wed	MI
1198	Data for second run of printed reports to print contractor	3 d	Thu 10/27/16	Mon 10/31/16	MI
1199	Print Reports	5 d	Tue 11/1/16	Mon 11/7/16	MI
1200	Ship Reports	2 d	Tue 11/8/16	Wed 11/9/16	MI
1201	Reports Arrive in Districts	1 d	Thu 11/10/16	Thu 11/10/16	MI
1202	**Production Data Student Growth Percentile UAT**	**347 d**	**Mon 3/16/15**	**Mon 7/25/16**	
1203	**Gather and document student growth percentile requirements**	**4 d**	**Mon 3/16/15**	**Thu 3/19/15**	
1204	Submit, review and revise requirements	2 d	Mon 3/16/15	Tue 3/17/15	MI, MDE
1205	MDE sign-off	1 d	Wed 3/18/15	Wed 3/18/15	MDE
1206	**Gather and document student growth percentile UAT requirements**	**3 d**	**Tue 3/17/15**	**Thu 3/19/15**	
1207	Submit, review and revise requirements	2 d	Tue 3/17/15	Wed 3/18/15	MI, MDE
1208	MDE sign-off	1 d	Thu 3/19/15	Thu 3/19/15	MDE
1209	Generate Production Student Growth Percentile Data	5 d	Thu 7/7/16	Wed 7/13/16	MI
1210	QA Student Growth Percentile Data	3 d	Thu 7/14/16	Mon 7/18/16	MI
1211	MDE review	2 d	Tue 7/19/16	Wed 7/20/16	MDE
1212	MI revision	2 d	Thu 7/21/16	Fri 7/22/16	MI
1213	MDE Sign-off	1 d	Mon 7/25/16	Mon 7/25/16	MDE
1214	**Psychometric Backup Services**	**9 d**	**Tue 5/19/15**	**Mon 6/1/15**	
1215	**Gather and document psychometric backup services requirements**	**3 d**	**Tue 5/19/15**	**Thu 5/21/15**	
1216	Submit, review and revise requirements	2 d	Tue 5/19/15	Wed 5/20/15	MI, MDE
1217	MDE sign-off	1 d	Thu 5/21/15	Thu 5/21/15	MDE
1218	Identify most likely backup scenarios (risk assessment)	1 d	Fri 5/22/15	Fri 5/22/15	AES
1219	Create a response plan (risk response)	5 d	Tue 5/26/15	Mon 6/1/15	AES
1220	**Document Retention and Storage**	**8 d**	**Thu 5/21/15**	**Tue 6/2/15**	

1221	**Gather and document retention and storage requirements**	**3 d**	**Thu 5/21/15**	**Tue 5/26/15**	
1222	Submit, review and revise requirements	2 d	Thu 5/21/15	Fri 5/22/15	MI, MDE
1223	MDE sign-off	1 d	Tue 5/26/15	Tue 5/26/15	MDE
1224	Set up and test MDE access to archived student data via open published API	5 d	Wed 5/27/15	Tue 6/2/15	MI, MDE
1225	**Technical Report**	**349 d**	**Thu 5/28/15**	**Mon**	

ID	Task Name	Duration	Start	Finish	Resources
1226	**Gather and document technical report requirements**	**3 d**	**Thu 5/28/15**	**Mon 6/1/15**	
1227	Submit, review and revise requirements	2 d	Thu 5/28/15	Fri 5/29/15	MI, MDE
1228	MDE sign-off	1 d	Mon 6/1/15	Mon 6/1/15	MDE
1229	MI provides test development documentation	5 d	Tue 9/6/16	Mon 9/12/16	MI
1230	MI provides test administration documentation	5 d	Tue 9/13/16	Mon 9/19/16	MI
1231	MI provides test security documentation	5 d	Tue 9/20/16	Mon 9/26/16	MI
1232	MI provides scoring documentation	5 d	Tue 9/27/16	Mon 10/3/16	MI
1233	MI provides reporting documentation	5 d	Tue 10/4/16	Mon 10/10/16	MI
1234	Data Privacy/Information Security Program Audit	5 d	Tue 7/26/16	Mon 8/1/16	

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Appendix C - Preliminary Project Plan

2. Project Approach

MI acknowledges that should we be awarded the Michigan Assessment System contract, we will develop the overall administration plan based on the tasks and subtasks for the State's Summative General, Summative Alternate, Interim, and Formative assessments program detailed in the statement of work of this RFP. We have based our proposed project schedule on information provided in Exhibit A. We recognize that maintaining the critical dates detailed in the project schedule is essential to the overall plan as the driving force for timely completion of all primary tasks and supporting activities.

As one of the first deliverables, MI will collaborate with the MDE to develop a concise and clear scope statement that includes elements such as the project goals and objectives, the project requirements, the project deliverables, the project exclusions, milestones, project scope management plan, approved change requests, project assumptions and risks, and project acceptance criteria. Many of the elements of a successful scope statement are addressed in the RFP and our responses to the RFP, and can be incorporated into the final scope statement. Below we present our preliminary project plan.

A. Project Objectives

We understand that Michigan is requesting a solution that will result in a complete assessment system that can be used to measure career and college readiness for Michigan students as well as provide rich information for districts, schools, educators, parents, and students. The scope of work for Measurement Incorporated as the proposed Administration, Reporting, and Scoring of Statewide Assessments contractor will include the primary tasks listed in this RFP as well as all supporting tasks. Measurement Incorporated intends to provide a consortia-developed assessment, as well as administration, scoring, and reporting of any Michigan-developed portions that are not covered by the consortium based assessment. We will provide all Psychometric Services required and perform the work required for the Student Growth Percentiles.

B. Scope Statement

Measurement Incorporated recognizes that the scope of work for this project includes statewide online and paper-pencil assessments beginning with the fall 2015 administration. We will deliver the summative assessments online using our MIST online delivery system, and include a paper-pencil option for 1) those students who are unable to take an online assessment due to an Individualized Education Program (IEP), medical condition, or linguistic/cultural status; and 2) those schools who receive an approved waiver from the MDE for a test cycle due to not being technology ready. We understand that the Interim assessments are optional for district adoption, but they will be administered online only and will be available online for schools at multiple points during the school year. MI will administer pre-, mid-, and post-assessments should sufficient funding be available to implement these assessments. We also intends to provide Formative assessment support to all public K-12 educators should sufficient funding become available. A succinct list of project deliverables, based on the RFP, is provided below.

Table 1: Expected Project Deliverables

Category	Deliverable	Resource Type
	Distribution of Spiral Fixed Forms	MDE Psychometric Staff MI Psychometric Staff
	Call Center	MDE Staff MI Call Center Manager
	Pre-ID Pull	MDE Staff MI IT Manager
	Item Rendering	MDE Staff MI Lead for Item Import and Rendering MI Technical Project Manager
	Online Test Delivery System	MDE Staff IT Lead for Online Delivery
	CAT Test Event	MDE Psychometric Staff MI Psychometric Staff MI IT Lead for Online Delivery
	Online Tools and Accommodations	MDE Staff MI IT Lead for Online Delivery
	Single Sign-on	MDE Staff MI IT Manager
	Scoring	MDE Staff MI IT Manager
	Forensic Analysis	MDE Psychometric Staff MI IT Manager MI Psychometric Staff
	Export to Reporting	MDE Staff MI IT Manager
Meetings	Communication Plan	MDE Staff MI Program Manager
	Initial and Yearly Kickoff Meetings	MDE Staff MI Program Manager MI Project Managers
	Technical Advisory Meetings	MDE Staff MI Program Manager MI Project Manager
	Performance Review Meetings	MDE Staff MI Program Manager
	Management Meetings	MDE Staff MI Program Manager MI Project Managers
	Executive Management Meetings	MDE Executive Leadership MI Executive Leadership MI Program Manager
	Project Status Meetings	MDE Staff MI Program Manager
Schedule	Baseline Schedule, approved by the MDE	MDE Staff MI Program Manager MI Online Project Manager
	Weekly and Monthly schedule updates	MDE Staff

		MI Online Project Manager
Plan Documents	To include but not limited to: • Change Management Plan • Communication Plan • Issue Management Plan • Resource Plan • Risk Management Plan • Disaster Recovery Plan • Call Center Emergency Plan	MDE Staff MI Program Manager MI Online Project Manager MI Call Center Manager
Online Test Delivery	School Readiness Evaluation Tool	MDE Staff MI IT Lead for Online Delivery
	Item Import and Review	MDE Staff MI Lead for item Import and Rendering
	Online Practice Tests	MDE Staff MI IT Lead for Online Delivery MI Online Project Manager
	Online Test Delivery System	MDE Staff MI IT Lead for Online Delivery MI Online Project Manager
	Online Testing Dashboard	MDE Staff MI IT Manager MI IT Lead for Online Delivery
	Online Tools Tutorials	MDE Staff MI Online Project Manager
Psychometrics	CAT Algorithm UAT and Approval	MDE Psychometric Staff MI Psychometric Staff
	Distribution of Spiral Fixed Forms Plan	MDE Psychometric Staff MI Psychometric Staff
	Forensic Analysis	MDE Psychometric Staff MI IT Manager MI Psychometric Staff
	Independent Psychometric Firm (AES)	MDE Psychometric Staff MI Psychometric Staff
	Paper/Pencil Test Forms	MDE Staff MI Test Development Staff
	Accommodated Test Materials Accommodated Test Materials: Braille Version Language Tools and Accommodations Human Voice Audio and Text to Speech Test Materials Kits Pre-ID Labels Packing and Shipping Materials	MDE Staff MI Psychometrics Staff MI Test Development Staff
	Test Administration Manuals	MDE Staff MI Project Manager MI Senior Editor
	Test Administration Directions	MDE Staff MI Project Manager MI Senior Editor

	Quick Start Checklist and Guide	MDE Staff
	Parent Brochure	MI Project Manager
		MI Senior Editor
Training	Video Presentations Webinars	MDE Staff
	Tutorials	MI Project Manager
Call Center	Call Center Reports	MDE Staff
		MI Call Center Manager
Reports	Online Assessment Reports Online testing usage and operation dashboard Teacher Reports Student Reports Technical Reports Call Center Reports Test Session Data Parameter Recovery Study AI Engine Performance Electronic Document Management Site Online Reporting and Archiving Paper-based Assessment Reports	MDE Staff MI Program Manager MI Project Managers MI Call Center Manager MI IT Lead for Online Testing MI Technical Lead for AI Scoring MI IT Manager
SGP	SGP Analyses	MDE Staff MI Program Manager MI Psychometric Staff MI IT Staff MI Scoring Staff
Scoring	Human Scoring AI Scoring	MI Scoring Staff AI Scoring Lead

Content Alignment

MI will collaborate with the Office of Standards & Assessment's test development unit to conduct an alignment of Michigan's assessment system to current Michigan content standards and benchmarks. We will assist in any content alignment review either internally or with educators from Michigan. We will provide read-only access to the MIST online administration engine to allow educators participating in item content or bias/sensitivity/accessibility reviews to observe the full functionality of the items.

School Readiness

To help determine if schools are technologically ready to perform online testing, Measurement Incorporated will provide the MDE with the testing device and bandwidth requirements so that a proper determination of readiness can be conducted. MI will use the MDE-provided data from the MTRAx database to evaluate school readiness for online testing and provide technical assistance to schools.

Online Test Delivery System

MI will provide a full-featured, tiered-access online test delivery system, MIST, that is fully interoperable with industry-standard item banking, scoring, and reporting systems. Security is implemented and enforced system-wide, ensuring the confidentiality of test content and student data. The MIST application is installed as a secure browser, operating on legacy hardware as well as next generation devices. The system includes an extensive array of parameters that are configurable to meet the MDE's requirements without requiring custom programming. The system's cloud-based hybrid hosting environment supports readily expandable testing capacity. Testing servers are hosted in a fully redundant professional hosting center, with proven backup and disaster recovery procedures in place.

System Interface with Secure Site

We will interface with the MDE Secure Site system using direct database reads and writes via a VPN connection to a vendor interface portion of the Secure Site database.

Test Items and Maps

MI will import and render each item, provide test specifications, and conduct requirements gathering to define any element of the items required for online delivery.

Distribution of Forms

MI will execute a plan to distribute the forms equitably while also leveraging known demographics of the tested population to ensure the forms are also distributed equally across those subgroups.

Accessibility

MI will be available for requirements gathering sessions and provide existing UAT process and specifications for all system, item, and context accessibility tools and accommodations. We will ensure that our system provides customized availability and identification of defaults for all available embedded accessibility tools and accommodations.

Test Session Data

MI will ensure that an official record of each student taking an assessment is present and available for audit, challenge, review or storage requirements. We will retain all necessary data related to time of student login, answer production, accommodation and tool usage, time spent on each item and exiting times.

Scoring

MI will conduct scoring of multiple-choice (MC) and Technology Enhanced (TE) items associated with online assessment and perform all tasks and related subtasks necessary to accomplish machine, human, and AI scoring.

Security

Measurement Incorporated will conduct all necessary tasks to maintain the highest level of security in order to safeguard the confidentiality of items, student information, and assessment results.

Print Materials

MI will provide students with the following print materials as a standardized and efficient medium to record their responses to the test questions: answer documents, ability to print on demand, Pre-ID labels, test booklets, accommodated test materials, ancillary materials, test administration manuals, means for materials requiring special handling, any materials that will need to be ordered.

Reporting

All reports generated for this project will deal with the capture of information and presentation of test related information. All reporting information provided will include both online presentation as well as printed reports. Reports will be provided for each assessment and a technical report will be included as well. The QA plan for State Assessment Reporting will cover numerous aspects of the reporting system, including developing a mock score file, developing mock student information, generation of mock student score reports, organization of the PDF score reports, checklists and sign-off sheets for the MDE, and copies of corrected reports onsite.

Student Growth Percentiles (SPG)
Measurement Incorporated will implement an SPG approach such that the calculation of an SGP is based upon the estimation of the conditional density associated with a student's current score using the student's prior scores as conditioning variables.

Psychometric Services
In the event that the MDE psychometric staff are unable to perform the necessary psychometric analyses, MI will provide these services on a time and effort basis. All items during the first large scale field test will be calibrated to the specified model to set the initial scale. Additionally, field test items will be placed on the same scale as the current operational items. An equating study to ensure the viability of the fixed items as anchors for the field test item scaling will be conducted.

Training
MI will work closely with the MDE to develop standardized training presentations for Michigan Interim and Summative assessment programs. MI will coordinate the sessions. The MDE will present important role-specific aspects of planning and administering online and paper/pencil assessments in a live video or webcast for each assessment program. The initial training videos will be recorded for subsequent workshops with Michigan Assessment Coordinators and Test Administrators. MI will provide supporting training materials for inclusion in the training packets, including test administration manuals and sample answer documents. In addition to webinars, MI will supply Quick Start checklists, online practice tests, and online tools tutorials to help test administrators and students become comfortable with the online testing environment.

Technical Support
MI will host a Call Center that offers tiered support for online and paper-based testing. The Call Center responds to routine questions, technical or unique situations, and calls that require follow-up by the MDE staff. MI staff will be available from 8 a.m. to 5 p.m. EDT/EST on Monday through Friday throughout the entire duration of the contract. During test administration, staffing will be available beginning at 7 a.m. EDT/EST. MI will provide metric reports to the MDE.

Personnel
MI understands that effective resource planning is essential for supporting a well-executed project to successful fulfillment. We have identified all resources and assigned the appropriate resource hours for all tasks in the RFP.

Project Management
Measurement Incorporated will apply the knowledge, skills and techniques to execute the Michigan Assessment System project effectively and efficiently. To this end we will be responsible for the following deliverables:

- *Meetings:* MI will be responsible for all arrangements and compensation for all meetings related to the project as specified in the RFP. These meetings include the kick-off meeting, Technical Advisory Committee (TAC) meetings, management meetings, executive management meetings, and project status meetings. MI staff will attend the TAC Meetings, as invited.
- *Schedules:* MI will provide a baseline schedule, subject to approval by the MDE, and weekly and monthly schedule updates.
- *Project Plan:* The Project Plan will be an extensive document

covering standard project management procedures, including change management, communication protocols, issue management, resource allocation, and risk management.

- *Electronic Document Management Site*: This site will be a secure web-facing permanent repository of electronic documentation. Project management documents (schedules, agendas, reports, meeting minutes, etc.), requirements, specifications of online assessment materials, and other important documents will be stored here.

- *Risk Register and Risk Management Plan*: These documents will communicate the perceived project risks, the actual project risks, and the status of these risks.

3. Assumptions and Exclusions

Assumptions

MI has based our assumptions for the preliminary project plan and our cost proposal on the requirements as stated in the RFP, Answers to Questions, and all addenda. We have based the schedule on these assumptions. Further, our high-level deliverables as stated above derive from the RFP and project assumptions. We recognize that the kickoff and orientation meetings are part of the initiation phase of the online contract, and as such, are initial opportunities for clarifying those assumptions between the MDE and MI. As the MDE and MI meet during the requirements gathering process, we will have additional opportunities to further refine our project assumptions to adjust the project plan and schedule to ensure delivery of high-quality assessments and reporting for the state of Michigan. We have identified the following assumptions:

- Up-to-date school technical readiness data will be provided by the MDE to MI
- Michigan-developed test items will be supplied by the MDE

Exclusions

In addition to clearly defining the scope of work within the context of the project approach, it is equally important to clarify what is not part of the scope of work. Based on the Michigan Project Management Methodology definition of exclusions, "Define what work is not to be done, that otherwise might be assumed to be part of this project," we have identified several high-level exclusions:

- The contract does not include item development tasks
- The contract does not include test form development tasks
- The contract does not include psychometric analyses, such as equating and scaling (unless the MDE requests psychometric backup services)

4. Critical Success Factors

Success factors are a critical element in focusing an organization on the important elements that underlie all successful projects. At MI, we discuss critical success factors frequently, both informally and formally, with all staff. Our number one critical success factor, on all projects, is the relationship between MI and the client. "Trust" is the operative word. The element of trust is inherent in the statement by the MDE in the RFP:

It is, therefore, imperative that the MDE and Contractor(s) work as partners in ensuring that the integrity of project management plans and processes are not compromised, that agreed-upon timelines are met, and that all deliverables, including test materials, administration processes, scoring, data analysis, and reporting are accurate, are appropriate for the intended audience, and encompass the highest standards. We have worked closely with the MDE to establish this culture of mutual support on online projects over the past two years and are dedicated to continuing this relationship.

Many of the words and phrases in that statement are inherent to our philosophy of working with clients: "partners," "integrity," "not compromised," "agreed-upon," "encompass the highest standards." In discussing trust with our staff, we find the 13 behaviors of trust, as defined by Stephen M.R. Covey (The Speed of Trust, 2006), to be a useful framework. Many of these behaviors overlap with the statement above, as shown in Table 2.

Table 2. Behaviors of Trust	
MDE Statement	**Behaviors**
Partners	Demonstrate Respect
	Show Loyalty
	Listen First
	Extend Trust
Integrity	Talk Straight
	Create Transparency
	Right Wrongs
Not Compromised	Confront Reality
	Deliver Results
Agreed Upon	Clarify Expectations
	Keep Commitments
Encompass the Highest Standards	Practice Accountability
	Get Better

In order to "deliver results," "keep commitments," and "practice accountability," there must be organizational structures in place that create a culture of success. The following are additional success factors that we see as critical to this project's success:

Executive Support. The support of the MI executive team is necessary for the success of this project. The executive team must understand the operational aspects of the project and the project's importance to the company as a whole. They must commit the proper resources, and re-allocate resources when necessary. They must also inspire the team, by giving attention to the project and communicating with the team as to how this project fits with other

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projects at the company to better fulfill its mission. At MI, the executive staff includes the president of the company, the senior vice-presidents, and the vice- presidents. They have been intimately involved with this project from the outset, from giving the green light to respond to the RFP, to planning and documenting our response to the RFP, to allocating the necessary resources to fulfill the deliverables of the project. At MI, we have an open-door policy. In addition to regularly scheduled meetings with the executive team, staff are encouraged to speak with the executive team at any time to discuss concerns. Executive support is also provided by a culture that encourages collaboration and involvement with the community, and family-friendly policies that allow our staff to commit their full attention to the project during the workday.

Communication. Communication encompasses many behaviors, from formal reports to informal discussions. At MI, we emphasize communication skills right from the start, during the hiring process. We hire personnel who are effective communicators in listening, writing, and speaking. Within MI, we have regularly scheduled meetings between different departments to discuss all aspects of a project. We train our staff to seek clarification whenever necessary, and to document all relevant discussions. With the client, we promote regularly scheduled conference calls, and in-person meetings several times a year. The MDE has set out a schedule for formal communications that fulfills these needs for active and ongoing communication

Well-Defined Scope. A well-defined scope of a project details its budget, schedule for deliverables, quality expectations, and its boundaries. MI is always open to discussing the scope of the project with the client, but we find a well-defined scope critical to an efficient use of resources in fulfilling the needs of the project.

Formal Operational Planning. A project needs a realistic and achievable plan to stay on schedule, with clear project deadlines and deliverables and detailed acceptance criteria. The schedule must be documented, the deliverables clearly delineated, and the responsibilities clearly assigned. Our project plan begins with our response to the RFP. The formal project plan, approved by both MI and the MDE, serves as the roadmap to achieving the goals of the project. We create detailed project plans, and update them regularly with approval and feedback from the client.

Documented Quality Assurance Procedures. The MDE emphasizes quality assurance plans in its RFP. We strongly support this emphasis, as we find documented quality assurance procedures a necessary element of a successful project. The testing industry demands high standards that can only be achieved by documenting every step of the QA process. The MDE has specified the following quality assurance plans. We will work collaboratively with the MDE to gather requirements for and prepare each plan.

Documented Contingency Plans. MI believes that a vital component of successful project management involves the ability to plan for potential obstacles that could disrupt the development of the project. Instituting an MDE-approved contingency plan, in addition to maintaining communication with the MDE from the onset of a situation, will allow the project to remain on course and deadlines to be met in the scheduled, timely manner. MI's approach to risk management is based on a straightforward process of risk identification, risk assessment (using qualitative or quantitative methods when appropriate), risk response planning (mitigation/contingency planning), and risk monitoring (continuous evaluation of risk factors).

Experienced Program Manager. A project of the complexity of the present RFP requires a

program manager who is experienced with projects that involve many employees, with a large budget and more potential risks. Mr. McCown has over 20 years in the field of educational assessment. As a Senior Program Manager, he is responsible for providing leadership and oversight of all aspects of the Michigan contract and will serve as the chief liaison with the MDE. Currently, Mr. McCown's responsibilities include the coordination and completion of major assessment projects including maintaining communication with clients, monitoring contract obligations, and developing and refining scoring criteria in cooperation with the clients. Mr. McCown has served as Project Manager for large statewide assessment projects including the Michigan Educational Assessment Program, Massachusetts Comprehensive Assessment System, and the Connecticut Academic Performance Test. He has worked closely with the MIST online testing team for many years and understands the complexity of online testing, particularly in the initial years of migrating from paper to online.

Additionally, we have identified the following critical success factors:

- Effective communication planning and execution between the Program Manager and the MDE
- Accurate evaluation of technical readiness of schools for online testing
- Accurate estimate of anticipated online testers per test administration window
- Integrity of the QTI in consortia and Michigan-developed items
- MI's Call Center as a lifeline to schools to support online and paper-pencil testing
- Call Center as a key communication channel between the client, project management, and MI technical experts
- Superior handscoring services

5. Initial Communication Plan

One of the cornerstones of MI's leadership approach is listening to our clients. We listen to what our client is saying in order to build a successful, collaborative partnership based on frequent dialogue, open lines of communication, and transparency. At MI, we believe that the essence of effective project leadership and management is communication. MI prides itself in the professional and collegial relationships we establish and maintain with our clients and partners. MI's entire executive team pledges its availability at any time to discuss any aspect of the programs we administer on behalf of the MDE, the Michigan Assessment System, or industry issues and opportunities in the field of educational assessment.

We understand that effective collaboration requires communication between project management team members, across MI internal units, with our partners, with the MDE, and among the executive teams of all participating organizations. A fully articulated and implemented communication process will ensure that decisions, issues, and resolutions are relayed in a timely manner. Mr. McCown will serve as the main program contact for the Michigan Assessment System online project. He will ensure that contract deliverables and timelines are met, coordinate activities among all departments within MI, and facilitate coordination and communication with the MDE and our partners.

We propose the following initial communication plan, outlined in Table 4, as an effective starting point for developing the final project communication plan. We will work with the MDE to gather

requirements for the final communication plan, keeping in mind the guidelines of the PMBOK[©] and *Operational Best Practices for Statewide Large-Scale Assessments*. Mr. McCown will submit the project communication plan in conjunction with the project plan to the MDE for review, input,

and approval. Through these proposed and other planned activities and procedures, MI will stay in close contact with the MDE throughout the life of the project while employing a proven system for identifying relevant topics, resolving issues, and making the best use of the MDE's time.

Table 4 Initial Communication Plan

Event / Report	Participants	Purpose	Frequency	MI Deliverables
Initial Kickoff Planning Meeting	MDE Staff MI Staff Subcontractor Staff	Clarify all aspects of the online deliverables	Once during the life of the contract	In consultation with the MDE, identify dates and participants Send out and track invitations to participants Locate, reserve, and pay for facility Arrange and pay for overnight accommodations for multi-day meetings according to the state of Michigan travel requirements Provide refreshments Provide healthy lunches Set up and provide daily sign-in sheets Prepare and post meeting agenda Notify stakeholders when agenda becomes available Prepare accurate meeting minutes Archive meeting minutes in SharePoint. Notify stakeholders by email when minutes are available
Kickoff Meeting	MDE Staff MI Staff	Discuss the content and procedures of the contract	Once during the life of the contract	As determined by the MDE
Subsequent Kickoff Planning Meetings	MDE Staff MI Staff Subcontractor Staff	Planning for upcoming assessment cycle	Yearly	In consultation with the MDE, identify dates and participants Send out and track invitations

Event / Report	Participants	Purpose	Frequency	MI Deliverables
				to participants Locate, reserve, and pay for facility Arrange and pay for overnight accommodations for multi- day meetings according to the state of Michigan travel requirements Provide refreshments Provide healthy lunches
				Set up and provide daily sign-in sheets Prepare and post meeting agenda Notify stakeholders when agenda becomes available Prepare accurate meeting minutes Archive meeting minutes in SharePoint. Notify stakeholders by email when minutes are available
Weekly Project Status Meeting/Weekly Project Status Report Weekly Issues Log Monthly Risk Log	MI Staff MDE PM	Report Project status	Weekly	Minutes of the weekly status meeting, including updates on risks, issues, change control to include pending change requests, help desk issues, and any MI team changes Action list MS Project Schedule including all metrics requested by the MDE Weekly Project Status Report Weekly Issues Log Monthly Risk Log Weekly Update of Project schedule
Management Meetings	MDE Staff MI Staff Subcontractor Staff, as needed	Review and discuss task implementation and status	Weekly or monthly, based on the MDE requirements	Prepare and post meeting agenda Notify stakeholders when agenda becomes available Prepare accurate meeting minutes Archive meeting minutes in SharePoint. Notify

Event / Report	Participants	Purpose	Frequency	MI Deliverables
				stakeholders by email when minutes are available In-person meetings: In consultation with the MDE, identify dates and participants Locate, reserve, and pay for facility Arrange and pay for overnight accommodations for multi- day meetings according to the state of Michigan travel requirements Provide refreshments Provide healthy lunches Send out and track invitations to participants Set up and provide daily sign-in sheets
Executive Management Meetings	MDE and MI executives	Review overall contract performance	Two times each year	Post meeting agenda Notify stakeholders when agenda becomes available Prepare accurate meeting minutes Archive meeting minutes in SharePoint. Notify stakeholders by email when minutes are available In-person meetings: In consultation with the MDE, identify dates and participants Locate, reserve, and pay for facility Arrange and pay for overnight accommodations for multi- day meetings according to the state of Michigan travel requirements Provide refreshments Provide healthy lunches Send out and track invitations to participants Set up and provide daily sign-in sheets
Rangefinding	Stakeholders			Seating capacity for all

Event / Report	Participants	Purpose	Frequency	MI Deliverables
Meetings	MDE Staff MI Staff Rangefinding Committee Members			attendees Microphones Large display screen ADA compliance Overnight Accommodations Transportation to and from meetings Refreshments and healthy snacks Healthy lunches Send out and track invitations
				Send copies of Agenda Setup and provide sign-in sheets Prepare and maintain meeting minutes
Technical Advisory Committee Meetings	MDE Staff MI Staff TAC Panel Members	Panel of nationally recognized assessment experts who provide advice to MDE on complex assessment-related issues	Four times per year	Send two members of MI staff
Call Center Reports	MI Call Center Manager MI PM	Hosting and managing effective call center support with toll free number for schools and districts	Monthly (weekly during test administration)	Call Center Volume and Response Metrics Summary of Call Issues
School and District Communications	MDE Staff MI Staff	Notify schools of applicable details	As needed	Online test access information Availability of practice tests Online training materials

| Electronic Document Management Site | MDE Staff MI Staff Subcontractor Staff, as needed | Access to electronic documents and deliverables | Continuous | Secure, password-protected SharePoint site for Michigan Assessments
Secure, password-protected SharePoint site for alternate assessments
Secure, password-protected SharePoint site for MI-Access
Secure, password-protected SharePoint site for interim |

Event / Report	Participants	Purpose	Frequency	MI Deliverables
				assessments
Online Technical Reports	MDE Staff MI Staff Subcontractor Staff, as needed	Project reporting online at MDE Secure Site	Continuous	Post reports to MDE Secure Site Rolling Reporting of Assessment results

Agendas and Meeting Minutes

Throughout the project, MI will create meeting agendas and maintain records of conference calls, minutes of planning meetings, documents (including email) that outline policy or process decisions, and any material that supports or clarifies activities related to item and test development, test administration, scoring, reporting, or any other material aspect of the program (such as professional development). Along with the implemented project work plan, this documentation will become the core of the annual project report that summarizes the complete scope of the client's assessment programs for a given year.

Records and Minutes. MI will take minutes of all meetings. We will submit all minutes, records, and participant lists in the format requested by the client via email or SharePoint site for review and approval within three working days after each meeting. Minutes approved by the client will be incorporated into each project year's annual report as official documentation. Sign-in sheets will be posted with the minutes after each meeting.

When we work with the client to conduct meetings, such as content, bias, or data review and rangefinding, that draw upon a representative sample of educators, administrators, parents, and/or business leaders, MI will maintain a record of demographic information of participants for all meetings. We understand that the demographic information is often needed to verify and document that all client stakeholders have been appropriately represented at crucial meetings. We will work with the client to identify the specific demographics that will be gathered to meet the needs of the state. After the meetings are conducted, we will provide summary information in a report format that has been approved by the client, along with the meeting minutes and other meeting documentation. Additionally, we will keep contact information for participants updated and current.

Other Documentation. Because we approach our work in a collaborative manner, we have empowered all project team members to communicate with their counterparts to facilitate the forward movement of deliverables. Therefore, the staff members will automatically copy the Project Manager on all written correspondence between MI staff members and the client. We have found this method of communication provides a means by which the Project Manager can be fully apprised of the status of all aspects of the project. The Project Manager will design and approve all official reports to the client. Additionally, the Project Manager will design educator and district targeted letters, email, and other mass communications for review and approval by the client.

The milestones and anticipated subtasks of the preliminary project plan schedule are included in the Project Schedule provided in Appendix B. MI will work collaboratively with the MDE to submit a final project plan schedule that meets the requirements of the MDE.

Kickoff Meeting

If requested by the MDE, MI will attend an orientation meeting in Lansing, Michigan within 10 calendar days from the online contract execution at a mutually agreeable date and time. We understand that the purpose of the meeting will be to discuss the content and procedures of the online contract. Prior to the orientation, Mr. McCown will coordinate with the MDE to determine all MI staff that are required to attend the meeting and deliverables that MI will need to provide for the orientation meeting. We acknowledge that MI is responsible for all travel arrangements and expenses for MI attendees when participating in the orientation meeting.

Executive Meetings

MI recognizes that we will meet at least twice a year to review overall contract performance. Prior to the Kickoff meeting, Mr. McCown will coordinate with the MDE to determine all MI staff that are required to attend the meeting and deliverables that MI will need to provide for the performance review meetings. We acknowledge that MI is responsible for all travel arrangements and expenses for MI attendees when participating in the executive meetings that are held in Lansing, Michigan. These meetings will rotate between MDE's office in Lansing and MI's office in Durham, NC. As a cost- and time- efficient measure for the MDE, we propose that all executive meetings occur adjacent to or in connection with the monthly management meetings and the weekly status video conference calls that we have noted in the preliminary communication plan.

Project Status Meetings

MI understands that we must attend weekly meetings to review performance and project status of the contract. These meetings will be held in Lansing, Michigan or by teleconference as mutually agreed by the MDE and MI. One business day prior to the project Status meeting, Mr. McCown will provide MDE with a project Status Report.

Technical Advisory Committee Meetings

The TAC is a panel of nationally recognized assessment experts who provide advice to MDE on complex assessment related issues. The TAC meetings are conducted and coordinated by MDE. The two-day meetings are held four times a year. MI is not required to arrange meetings; however, Mr. McCown and another person from MI's key personnel will be in attendance at the meetings.

Educator and Other Stakeholder Communication

Because there will be a considerable amount of communication with educators, testing coordinators, parents, district contacts, and other stakeholders, we propose establishing a protocol for communicating with each group throughout the assessment cycle. We have found that partnering with the client to create a specific and targeted plan facilitates the process of essential stakeholders investing in and supporting the entire assessment program.

At the beginning of the project and annually thereafter, Mr. McCown will confer with the MDE to prepare a list of topics to be addressed each year. The list will detail the messages that should be transmitted and specify which stakeholder group should receive each message. The protocol will detail who will contact whom, how the contacts will be initiated and conducted, how they will be recorded and reported, and who will receive the reports. As the project progresses, Mr. McCown will maintain a log of contact events (emails, teleconferences, meetings) and build a database of topics, reactions, ideas presented, and actions taken. We have found that keeping a log of contact events is a helpful tool as we work with the client to continually improve the assessment process.

Having received approval for the stakeholder component of the communication plan, MI staff will begin to communicate directly with schools and districts. While we can use traditional methods of communication, we propose to extend the technology-based and website capabilities we have developed for other projects and take advantage of their established utility for the educational community.

Mr. McCown will report regularly to the client about educator and other stakeholder communications. Prior to sending mass mailings, broadcast email, or other mass communication, she or he will submit a copy to the appropriate designated client staff member for review and approval. Items prepared for online distribution will first be submitted and approved by the designated client staff member and then resubmitted in PDF or HTML format to facilitate easy posting to the MDE website.

6. MDE Supplied Materials

In our role as a partner with the MDE, we understand that the MDE will provide certain materials to us. These materials, as listed below in the table, are critical resources necessary to facilitate the progress of the project and meeting the target dates that are detailed in the MS Project Schedule. We do not anticipate needing hardware or supplies provided by the MDE.

Materials	Purpose	RFP Section	RFP Page No.
MTRAx technology readiness survey	School Readiness	1.1.2	8
Michigan-developed test items	Import and render in online test delivery	1.1.5	33
MDE-supplied strings of item response data	Ensure the adaptive engine functions as	1.1.5	35
Test Map Tables	• Scoring and reporting	1.1.5	36
Pre-ID Data Table	• Print Pre-ID labels • Overprint student data on scannable answer documents	1.1.11 A5	82
Test Blueprints and Test Specifications	• Develop scannable	1.1.11 A1	81
Test Booklet POFs	• Printing	1.1.11 B	83
Reader Script Booklet POFs	• Printing • Develop accommodated	1.1.11 C	84
Braille Notes	• Develop accommodated	1.1.11 F	92
Item Specifications	• Produce and print auxiliary test materials	1.1.11 F	92
Test Administration Manual	• Printing	1.1.11 F	92
Initial Order Data Table	• Packing and shipping	1.1.11 H2	93
Test Administration Monitoring	• Test administration	1.1.10 F2	80

Materials	Purpose	RFP Section	RFP Page No.
Overview, Letter of Introduction, and Site Visit List			
Field Test Constructed-Response Reading Rubrics, for applicable	• Rangefinding • Handscoring	1.1.8 B	63
Missing Materials Letters for Schools and Districts	• Include with invoice and report of missing barcodes, late returns, and emergency forms	1.1.10 12B	100
Psychometric Data	• Produce draft of technical report, if	1.1.13	109